GENERAL ECONOMICS

UNIVERSITY QUESTIONS WITH FULL ANSWERS

(1909—1918)

BY

A GOLD-MEDALIST.

FOURTH EDITION

Sen, Ray & Co.,

Book-Sellers and Publishers,

Cornwallis Buildings,

CALCUTTA

1925

General Economics

TEN YEARS CALCUTTA UNIVERSITY QUESTIONS WITH FULL ANSWERS
(1909—1918)

BY

A GOLD MEDALIST

SEN, RAY & Co.,
BOOK-SELLERS & PUBLISHERS,
Cornwallis Buildings,
CALCUTTA
1925

Published by
S C Mukherji, for Messrs Sen, Ray & Co ,
Cornwallis Buildings,
Calcutta

PRINTED BY
M AZHAR ALI MOLLAH,
AT THE SEN PRESS,
Cornwallis Buildings, Calcutta

1909.

1st Paper GENERAL ECONOMICS *Answer any eight*

1 Trace the development of the present system of Poor Law Administration in England What were the principles established by the Elizabethan Act of 1601, and how far have these been adhered to or departed from in modern times ?

2 Explain the provisions of the Bank Charter Act of 1844 and indicate the circumstances which led to the passing of the Act Examine the arguments for and against its repeal

3 Discuss the respective views of Prof Cairnes and of J S Mill regarding the scope and nethod of economic enquiry in the light of (*a*) Walker's (*b*) Gide's remarks on the subject

4 What are Comte's reasons for denying to Political Economy the character of a science ? How far are these objections valid ? *State concisely and examine critically the* doctrines of the Liberal School of Economists

5 Remark on the characteristic merits of Peasant proprietorship Would you advocate the compulsory introduction of the system in a country like England ? Give reasons for your answer

6 Account for the rise and explain the function of the Entrepreneur class in the modern industrial world

7 Trace (*a*) the evolution of ideas regarding the productivity of labour, (*b*) the successive stages of industrial evolution

8 State and comment on the economic theorem known as Gresham's Law

9 Explain Walker's theory of value. What is the economic signification of competition and why does Walker consider it to be the most important word in the theory of value ? Discuss in this connection the two following propositions — (*a*) Labour is the cause of value (*b*) Utility is the cause of value

10 Discuss the arguments which are commonly adduced (*a*) in justification, (*b*) in condemnation, of the present system of distribution of wealth

11. Expound the residual claimant theory of wages as put forth by Walker and summarize Gide's comments on the theory

12 Discuss—(a) Rent is not an element in the price of agricultural produce, (b) Profits do not form a part of the price of manufactured products

13 "This has been the object of protectionism for many years—an object which it seeks to attain by means of elaborate tactics based on the following considerations" What is this object, and what are the considerations here specified ?

14 What is meant by the *economic harmonies* and how is the doctrine affected by the principle of the *degradation of labour* ?

15 What does Walker consider to be the ideal tax, and what is meant by the purely economic theory of taxation ?

Answer to Q 1

The beginning of the history of Poor Law may be traced from the year 1601 At this period work-houses had not been opened and relief was given to the able-bodied subject to conditions of work, and to the aged and infirm work was provided at their own homes The system proved a failure and by the middle of the 17th century an act was passed authorising the opening of work houses

Later on the evils of the undue strictness of the system came to be felt In the reign of George III an act known as Gilbert's Act was introduced which altogether abolished the work house system Further acts authorized the guardians of the poor to find employment for the able-bodied and provisions were made to supplement their earnings with allowances in special cases Soon however the effects of this laxity appeared, pauperism increased by leaps and bounds, the morals of the people were greatly degraded and the industrious were taxed to help the poor and the dissolute

...o remove these defects a new act in 1834 came into force ...ple of the act was to make the position of the paupers ...le and with that object the work house system was ...roduced This act restored the scope and intention of ...atute of Elizabeth of 1601 rather than introduced a new

system of law Under this system relief was given to the able-bodied persons and their families in well-regulated work houses, out relief being confined to those who could not work.

Answer to Q 2

The chief provisions of the Bank Act of 1844 may be divided under two heads:—those concerning the Bank of England and those which concern the ordinary banks.

I—Provisions concerning the Bank of England

(a) The Bank of England was to be divided into *two* departments—the issue department and the banking department The Bank was to transfer to the issue department securities to the value of £14,000,000 and all the gold coins and gold and silver bullion not needed in the banking department In return the issue department was to hand over to the banking department an amount of notes equal to the securities, coin and bullion transferred to it Thus the Bank was authorised to issue notes against securities to the amount of £14,000,000 but beyond this sum it could not issue a single note except against coin or bullion

(b) If any banker who had retained the right of issue ceased to exercise this privilege, the Bank of England might increase the amount of securities in the issue department by a sum not exceeding two thirds of the amount of notes withdrawn from circulation. Thus the Bank gradually inherited the rights of issue of those country banks which resigned their privilege until it monopolised the business altogether

(c) The Bank was exempted from all stamp duty on its notes but in return for the privileges granted to it the annual sum to be paid to the government was increased from £120,000 to £180,000

(d) Any one was entitled to demand notes from the Bank in exchange for standard gold at the rate of *£3 17s-9d* per ounce By this the Bank authorities bound themselves to the obligation of buying all the gold offered to it at a fixed price

(e) Weekly accounts in a specified form were to be sent to the government and published in the London Gazette

II —Concerning country banks

The Act provides that the right of issuing notes shall be confined to those banks which possessed this privilege before 1844 Even in their case the right of issue was regulated as follows —

Any banker who became bankrupt was to forfeit his right of issue If two or more banks united they might not issue notes should the number of partners exceed six

The notes issued by the country banks were not to be legal tender

It is evident that the whole *tendency* of the Act was to eliminate by degrees all notes except those of the Bank of England

The circumstances leading to the passing of the Bank Act of 1844 were the frequent recurrence of crises and specially that just preceding it It was the crisis of 1836—9, that opened the eyes of financiers and business men to the grave risk to which their country was liable, as they believed to be, by the improvidence of bankers They were convinced that the unlimited freedom of issue brought about these crises

As for arguments for repealing the Act it is held that a portion of the Act dealing with the regulation of note issue may be conveniently modified

The drawbacks of the present system arise from the artificial nature of the Act. By separating the Bank into two departments and by obliging the Bank to buy all gold offered to it, it tends to increase the fluctuations of the discount rate For the rate depends upon the cash reserve, the amount of which is subject to fluctuations from external causes

Moreover, it is based on errors of fact (a) It is supposed that the banks could increase circulation at will, which is inexact, (b) that commerce always requires the same amount of money, which is also inexact, and, finally, (c) that a metallic currency is safer and less variable than a paper currency, which [illegible] inexact

[illegible]y the Act failed to achieve its purpose which was to [illegible] crises, for crises there had been in 1847, 1857 and 1866, the Act had actually to be suspended

It may be urged in favour of the Act, i e against its repeal that at least it had diminished the number of crises and practically stopped them since 1867 The Bank has always been able to supply gold to those who demanded it Under the influence of the Act the position of the Bank of England has become more definite Its function is to be the general repository of cash reserve of British trade and finance and even ultimately of the trade and finance of the whole world The method of attracting gold is by a wise manipulation of the Bank rate

Lastly the new device of cheque system has removed the artificial character of the Act and has given to trade that elasticity which it is the object of a banking organisation to supply

Answer to Q 3.

Cairnes belonged to the school of thought which maintained that the province of the science of political economy is to explain the phenomena of wealth—hence all the causes which directly or indirectly affect the actions of men must be considered.

The method appropriate to the science should be a realistic one In the beginning, however, all economic enquiries must start with abstractions, i e, assume men, whose economic activities are the subject-matter of the Science, as possessing certain typical characteristics The next step is gradually to introduce subordinate causes whether mental, physical, social or political, which influence human conduct in the pursuit of wealth

On the other hand the method of economic enquiry as held by J S Mill is more abstract "Political Economy" says Mill "is concerned with man solely as a being who desires to possess wealth and who is capable of judging the comparative efficacy of means to end." Thus we have here all the elements of an "economic man" who is guided by no other passion than the desire for wealth

Walker criticises the latter method by remarking that although Political Economy should begin with the abstract method, but the work should not be considered as finished here Abstract reasoning only gives the outlines and upon the "ghastly

frame work" should be imposed the flesh and blood of an actual vital political economy

Gide says that the mistakes of the English Classical School do not consist in the too frequent use of abstract method but in mistaking the abstraction for the reality The safer method is the inductive method It starts from the observation of certain definite facts and bases its general propositions on the observation of these facts

But the difficulty is that observation of facts is difficult in social sciences because the facts are so very various Besides without experiment it is of no use in arriving at scientific truths and in Social Sciences experiments are impossible The proper method therefore should consist of three stages

(a) Observing facts

(b) Imagining general relations of cause and effect between two groups of facts

(c) Verifying the hypothesis with facts as they actually occur

Answer to Q 4

Comte denies to political economy the character of a science because it is not capable of prediction and provision—the true mark of a science Sciences like Chemistry and Astronomy can predict precisely the result of a given cause but the science of economics, dealing as it does with men having free will of their own, cannot predict regularity in the same way Nevertheless men are after all the slaves of habit Hence, generally speaking, prediction is possible though it may lack the precision of an exact science

Then again Comte holds that economics deals with one portion of a complex social organism all parts of which are so closely related that a systematic study of isolated parts is impossible

To this Keynes answers that although a complete knowledge of economics implies a thorough study of all the different branches with which it is related still the peculiarity of economic phenomena amply justifies an isolated study

The doctrines of the Liberal School may be summed up thus —

(1) Human societies are governed by natural laws which we could not alter even if we wished They are the best possible and the economist has only to discover these natural laws in their operation.

(2) These laws are in no way opposed to human liberty

(3) The part of the legislator must be limited to developing individual initiative as fully as possible, to removing whatever might interfere with such development Therefore the intervention of government ought to be reduced to a minimum

The most serious objection that can be made against this body of teaching is its marked tendency to optimism Of course from a consideration of the economic organisation of society of the time the conclusion may be drawn that they are beneficial in certain aspects at least

The idea, moreover, that the prevailing economic order is the spontaneous product of liberty and could be replaced only by an order founded on restraint, is not well-founded The present order is at best the result of either war or brutal conquests Therefore there is a possibility of rearranging it under conditions of absolute liberty

Nor is it legitimate to conclude that because the laws are permanent, the existing economic facts also possess the character of permanence On the contrary contemporary science shows that the natural law *par excellence* is that of evolution, hence the idea of change is presupposed in it. Moreover our will is by no means powerless to bring about changes

Answer to Q 5

Small peasant proprietorship is the most powerful incentive to work, it affords the best opportunity of employing the whole family under the direction of the head, and strengthens family life In small and middle sized farms owned by men working themselves, the "eye of the master" can better observe what is wanting than in very large farms, further the owner is not tempted, as the farmer may be, to sacrifice the permanent qualities of the soil to gaining immediate but temporary profits, he husbands the fertility of his land On small occupancies, where he only grows corn for the use of the family, he is more independent of market fluctuations Again a large body of peasant proprietors affords a steady bulwark against

political and social turbulence Marshall says—"The position of the peasant proprietor has great attraction He is free to do what he likes and is not worried by the interference of the landlord, and the anxiety lest another should reap the fruits of his work and self denial His feeling of ownership gives him self respect and stability of character, makes him provident and temperate in his habits"

"The magic of property turns sand into gold" said Arthur Young It undoubtedly had done so in many cases in which the proprietors have been men of exceptional energy

In spite of so many advantages of the system, it cannot with advantage be introduced in a country like England where the conditions are not favourable to the adoption of such a system and for following reasons:—

In the first place the English labourers are the descendants of an enterprising race who preferred to make themselves owners of the New World rather than to be peasant proprietors with its narrow income and humdrum life

Besides the system prevailing there is the product of long history and although faulty and harsh in many respects, yet it stimulated and economised energy Further the English system of land tenure has much to be commended It enables the landlord to keep in his own hands the responsibility for that part of the property which he can look after with but little trouble to himself, and investment of which does not require constant and minute supervision The second merit of the English system is that it gives the landlord considerable freedom in the selection of an able and responsible tenant

It is best for the economy of production that farms should be as large as possible under the existing conditions of land tenure, so as to give room for the use of highly specialised machines and for the exercise of great ability on the part of the farmer Small holdings often require more extensive building, roads etc. and, involve greater trouble and incidental expenses of management. Peasant proprietorship being unsuited to the economic conditions of England, to her soil and to the temper of her people, there should be no artificial encouragement of it

Answer to Q. 6

With the progress of industrial development and increasing facilities of communication, production becomes highly diversified and the specialisation and localisation of trades proceed so far that one country or perhaps one group of towns produces goods of a certain sort which are consumed throughout the world The element of personal liability between producer and consumer disappears Production no longer waits for orders but anticipates demand

Conditions like the foregoing increase enormously the chances of misunderstanding between producers and consumers The possibilities of error in supplying the markets no longer of a village but of the world become tremendous

Further the system of production is now completely revolutionised—powerful and complicated machinery is now introduced, costly structures and plan are required, a great number of operatives has to be gathered under one roof, each knowing only his own part, all requiring to be instructed, equipped, organised, energised, and directed by the intelligence and will of one common superior The materials consumed are the product of distant lands and are distributed widely to consumers not known to the producers, and are sold largely on credit, when moreover, a few simple standard styles give way to ever-varying fashions, in material, form and colour in such a state the entrepreneur becomes a necessity of the situation

Among the functions of an entrepreneur Marshall thinks that the superintendence of labour is one side and often not the most important side of business work and the employer who undertakes the whole risk of a business really performs two entirely distinct functions on behalf of the community and requires a twofold ability

The ideal manufacturer must, in his first role as merchant and organiser of production, have a thorough knowledge of things in his own trade He must have the power of forecasting broad movements of production and consumption, of seeing where there is an opportunity of supplying a new commodity that will meet a real want or improving the plan of producing an old commodity He must be able to judge cautiously and

undertake risks boldly and must understand the machinery and materials used in that trade

Secondly, in his role of employer, he must be a natural leader of men He must have the power of choosing his assistants rightly and then trusting them fully, of interesting them in the business so as to bring out whatever enterprise and power of imagination there is in them, he must exercise a general control over everything and preserve order and unity in the main plan of business

Answer to Q 7

(*a*) The term "productive" originally applied to one kind of labour, has gradually been extended in its application The stages of development may be summed up thus—

(1) Physiocrats looked upon agricultural labour as productive and denied this character to all other labour

(2) This definition of the physiocrats was unquestionably too narrow Of what use is wheat before it has passed through the hands of the miller and baker? Ever since Adam Smith no one has hesitated to regard manufacturing as productive labour

(3) Then with regard to transportation there had been more hesitation because it seems to work no change whatever in the article transported But transportation creates place utilities

(4) With regard to commerce and trade, the hesitation has been longer It is nothing but buying and selling and does not imply any creation of wealth But we must observe that commerce cannot be separated from transportation

(5) Finally, the discussion has been keenest with regard to the services such as those rendered by liberal professions The services of these men are not embodied in any material products, still since they satisfy human wants they must be included under the category of productive labour

The merit of discovering the successive stages of industrial development is due to the historical school

The evolution of industry may be thus traced—

(1) The home economy

Under this system men are divided into small groups, each one of which is independent of others from the economic point

of view They produce all what they consume and nothing more

(2) Corporative economy or the guild system

This system appeared in Middle Ages and is characterised by separation of trades The worker is autonomous, i e owns the raw materials and produces with the aid of tools that are his own property He is associated with other workmen of the same trade in a kind of league for mutual assistance and defence

(3) Domestic economy

The workmen in the guilds gradually lose their independence and instead of producing directly for their customers, they now produce for the wholesale dealer They produce at home but no longer own the finished product, that belongs to the dealer The advent of this class of middlemen is necessitated because the little town market has given place to the national market

(4) Organised manufacture or the workshop economy The industrial organiser now brings together his dispersed workmen in one place Thus he gains the advantages of division of labour which increase productive capacity Henceforth the workman owns neither the raw materials nor the implements of production This transformation began to take place from the middle of the 16th century

(5) Machine industry or the factory system

This system marks the modern epoch It began with the application of steam to industry and transportation It has carried productive power to its maximum and emphasised the features of the preceding period As this system constantly requires an increasing amount of capital it perpetuates what the socialists call the regime of capitalism

Answer to Q 8

Gresham's law is sometimes expressed in simple language —"bad money drives out good money" The principle may be stated thus—where by legal enactment a government assigns the same nominal value to two or more forms of circulating medium whose intrinsic values differ, payments will always, as far as possible, be made in that medium of which the cost of production is least and the more valuable medium will tend to disappear from circulation in the case where the combined

amount in circulation is not sufficient to satisfy the demand for money, the more valuable medium will simply run to a premium

Where does good money go ?

It disappears in three different ways—

1 Hoarding When people want to hoard money for future emergencies they always choose the full-weight, because these offer the most security against depreciation

2 As the foreign creditor accepts the natural money for the weight of the fine metal it contains, naturally, good money is reserved for these purposes

3 Sale by weight Further good money disappears from circulation because of its use in the arts

Limitations of the law—

(i) In the first place some force must be allowed to the influence of habit People get used to passing coins and do not consider the precise weight or the integrity of the image If they are assured by experience that they can pass them in their turn that is enough

A more important principle, however, in counteracting Gresham's law is the principle of limitation With a certain level of prices and a certain amount of pecuniary transactions to be effected, a certain quantity of currency of some kind is required for internal trade Thus however small the metallic value of the coins may be—if they are limited in number, they may retain their nominal value and circulate side by side with full-weight coins

Answer to Q 9.

Walker's theory of value

Walker defines value as the power which an article confers upon its possessor, irrespective of legal authority or personal sentiments, of commanding in exchange for itself, the labour, or the products of labour of others Value depends upon the relation between demand and supply always referring to a certain article and a certain price

I (*a*) If the supply suddenly falls off and the demand remains constant the price will go up and the supply will be ...ld to fewer persons

(*b*) If simultaneously with the fall in supply the demand for a rival commodity increases, producers will leave off producing the original commodity and divert their capital to the new one

(*c*) If the purchasers must have the commodity at any price (the demand being inelastic) and since they cannot get it at the original price because of a decrease in supply they will offer a higher price for it

II (*a*) If the supply suddenly increases and there is a corresponding increase in demand, price will remain constant

(*b*) If the supply increases faster than demand, price will fall Fall in price will reduce the supply a little and increase the demand Thus supply and demand are gradually adjusted through the action of *competition*, and this is the most important word in the theory of value

The advocates of *the utility theory of value* maintain that value is relative to utility The greater the utility, the higher will be the value

Criticism (*a*) The value of a commodity is not always in proportion to its utility The utility of salt is greater than the utility of tea Yet the value of tea is greater than the value of salt

(*b*) Utility by itself will not give value to a thing Air, for instance, has utility but no value, because of the absence of another factor 'scarcity'

The *theory that labour is the cause of value* is certainly wrong It is true that men do not commonly give labour for that which has not cost labour, and that the respective values of a number of articles will be nearly according to the amounts of labour that have been expended upon them severally But this does not prove the theory for we cannot say because an article has cost labour therefore it possesses value Some articles have value equal to that of another article which cost twice as much labour as itself, *e g*, port wine acquires value in proportion as it is old although no further labour is spent on it An autograph of John Milton may have been written to occupy an idle moment Labour economically speaking there was none but still it may be worth 20 dollars.

Answer to Q 10

(*a*) The classical economists justify the present system of the distribution of wealth and hold that society is based upon the liberty of labour and the absolute freedom of contract Every one receives the just and exact equivalent of the wealth he creates If there be anything wrong in exchange it is because of the present system of protection legal monopolies, etc They explain that the crops of farmers, the products of manufacturers and the intelligence and strength of those who possess neither capital nor land are sold at prices fixed on the market by the law of supply and demand The public is thus the sole judge and nobody else can possibly be

They also point out that competition tends to correct any inequality that may arise If a particular product is sold at a high price and fetches high profits to the manufacturer rivals would immediately engage in the same industry and will soon by increasing the supply of those products reduce their value to the level of the cost of production

Further the present system of distribution performs two functions of capital importance It stimulates productive activity—by allowing each individual to do what he thinks best and to keep to himself fruits of his own labour, secondly, it violates no one's right of initiative The distributive process does not call for a distributive authority Anything better than the present system would require some agency to make it operate Although justice is a precious thing but other precious and noble things there are, and one of them is liberty It would be too dear a price to pay for a more equitable distribution if it were obliged to sacrifice liberty to obtain it

(*b*) On the other hand there are men who think that the explanation of the classical economist is scientific but a poor justification for the present order of distribution Why should a miner get two dollars a day and a celebrated pianist receive 2500 dollars for playing 2 or 3 selections at a concert ?

Lastly the action of competition, which the classical economist values as a corrective keeping the price of things at the level of cost of production, is not always operative For there are monopolies which exact monopoly profits and nowadays they extend to almost every kind of income

Answer to Q 11.

By the residual claimant theory Walker means to assert that wages are strictly the residual share of the product of industry after the claims of other factors have been satisfied (Wages = total product of industry—rent—interest—profit) There are special laws regulating the share of these other factors but in the case of wages there is no such law So that any improvement in the skill of labour which increases the product of industry enhances wages without giving to any one of the other three parties to production a claim to an increased remuneration

It will not increase the share of rent since the gain to production results from a better economy of materials, in kinds and amounts than before Hence no greater demand is made on land, hence cultivation is not driven down to inferior soils—hence rent cannot be enhanced

The same holds good in regard to the share of capitalists An improvement in the industrial quality of the labouring class does not mean an increase in the amount of tools and machinery required in production On the contrary intelligent workmen require fewer tools to perform the same kind of work Hence there is no greater demand for capital and consequently there can be no increase in the rate of interest

Will it go to increase profits ? The law on which profits depend does not admit of any increase in a case like this, since an improvement in the industrial quality of a body of workmen would not require an increase in the number of employers

This theory, Gide says, if sound, would be quite encouraging For if the rate of wages depends upon the productivity of the working-man's labour, his welfare is entirely in his own hands This makes it appear impossible for labour organisations to improve the condition of working classes For if the labourer is the residual claimant, it must necessarily follow that he is powerless to increase or decrease his share in distribution

Further Gide remarks, "Walker holds that the labourer may lose his advantage by weak and spasmodic competition with the employing class " This means that the share of the labourers is governed by natural laws like all other shares

The residual claimant theory is partially true in this that the productivity of labour influences the rate of wages by increasing the general wealth of a country, that by thus augmenting the sum total of wealth for distribution it must ultimately increase the share that goes to each productive factor and therefore help to increase wages *But this theory is partially wrong* and leaves in the background one of the most essential factors of the problem, *viz*, the abundance or scarcity of labour, the effect of which is oftentimes preponderant in determining wages

Answer to Q 12

(*a*) *The doctrine that rent is not an element in the price of agricultural produce* follows directly from the theory of rent enunciated by Ricardo Since the price of an article is fixed by the cost of producing that portion of supply which is produced at the greatest disadvantage and since in the same market there can be but one price for the same commodity, from these it follows that rent does not enter in the cost Remission of rent does not affect in the least, for the demand remaining constant, the same amount of produce must be raised from the land without altering the position of the margin which determines rent As Marshall puts it "The amount of produce raised, and therefore the position of the margin of cultivation are both governed by the general conditions of demand and supply They are governed on the one hand by demand, that is, by the numbers of population who consume the produce, the intensity of their need for it, and their means of paying for it, and on the other hand by supply, *i e*, by the extent and fertility of the available land, and the numbers and resources of those who cultivate it"

Of course, rent is paid out of the price of the article Individual producers in drawing up the balance sheet must enter rent in the rent item of cost But the point at issue is that it does not determine price The amount of rent is not a governing cause but is itself governed by the fertility of land, the price of produce and the position of the margin

[For a simple discussion of the statement "Rent is not an element in the price of agricultural produce," refer to prof M Sen's Outlines of Economics, Part II, chapter on Rent.]

(*b*) From the peculiar theory of profit advocated by Walker also follows that profits do not form a part of the price of

manufactured products Walker holds that just as land is graded according to the degree of fertility, similar gradations there are among business men engaged in a particular industry (i) In the top there are those rarely gifted persons who seem to turn everything they touch into gold, who have such an insight as almost to seem to have fore-sight (ii) Next we have the much larger class of men of business of a high order of talent (iii) Then we have men who do pretty well in business and enjoy a harmonious union of all the qualities of the entrepreneur, though only in a moderate degree The first class of men earns exceptionally large profit because of rare business capacity, the second class earns large profit because of high business ability, the third class earns moderate profit Lower down in the industrial order there are multitudes of men who are found in the control of business for no good reason and who earn no profit

This last order of men is in Walker's view the 'no profits' class of employer The cost of production of these marginal or 'no-profits' employers determines the price of manufactured products—and their cost of production includes no profit as they do not get any profit Hence profits do not enter into the price of manufactured products

The employers (of the first, second and third classes) who are in a more favourable position get a surplus which is called profit (Profit varies according to the degree of efficiency of the firms above the margin)

Answer to Q 13

This passage is a quotation from Gide's Political Economy (p 370). *The object of protectionism herein laid down is to protect nascent domestic industries against foreign competition*, which when left free and unchecked may ruin the industry of a nation and stifle its productive forces Thus the protectionists regard international trade as a kind of warfare—a struggle for life among nations—in which one nation should try to inundate foreign countries with its own products while not allowing these countries to export their goods to its own country

The elaborate protectionist tactics employed by a nation to attain the above objects are based on the following considerations —

(1) International trade possesses all the characteristics of a struggle for life in which the weak go down Dislodged from one occupation to another, the weaker nation would emigrate portions of its population and capital by and by So a nation should protect its industries against foreign competition

(2) Even supposing that total industrial destruction in this way is impossible—that each nation would succeed in finding some branch of production in which it could retain its superiority, specialisation in a single kind of work is liable to prove disastrous to physical, intellectual and moral development. Biology teaches us that development of an organism depends on the variety and number of its functions and the degree of differentiation of the organs So a nation should protect a sufficient number of its own industries against foreign competition and prevent excessive specialisation in a single kind of work or a single industry

(3) The importation of foreign products, if not counterbalanced by a corresponding exportation of its own products is likely to ruin a country by reducing it to the position of a debtor So a country must protect its own industries

(4) Protectionists advance the fiscal argument that customs duties on foreign goods imported into a country are the best kind of taxes because they are paid by foreigners Such customs duties (taxes) on foreign goods not only protect home industry but also procure resources for a country without cost to its citizens

Answer to Q 14

By the term Economic Harmonies Frederic Bastiat meant that industrial forces automatically tend to diffuse all benefits, to equalise all burdens, and to repair all local injuries at the expense of the vital powers of the whole industrial body The assumption underlying this theory of self-protecting power is full and free competition

Calamities such as wars, failure of harvests, conflagrations and floods now and then visit every industrial class With complete freedom of movement, from place to place, from avocation to avocation, the original loss of any particular industrial class (*e g*, labourers) is distributed over the whole

industrial body of the country, while the forces of repair and restoration will immediately set to work to make good what has been taken away

Walker criticises Bastiat's optimistic view of 'harmonious' economic forces, based on competition as being wholly absurd, on the contrary *competition pushes down the weak and helpless to utter ruin* *Walker thinks that industrial injuries once suffered by a particular industrial class (e g, labourers) tend to remain with them instead of being diffused over the whole country* "In the case of the labourer thrown out of employment," he says, "there is always danger that self-respect, hopefulness and ambition, the most powerful factors in industrial efficiency, may fail among squalid surroundings A less simple and nourishing diet and less healthful conditions, submitted to for a while, perhaps the contracting of distinctly bad habits through anxiety, disappointment and enforced idleness may so lower his industrial power as to unfit him to render the same amount and quality of service as before" In such a case not only is there no tendency for any economic force to repair the mischief that has been done, but even the occurrence of better times and new opportunities would not restore the shattered industrial manhood The tendency of purely economic forces, therefore, is to widen the difference existing in the economic constitution of industrial society

Answer to Q 15

Walker considers that the only theoretically just basis of taxation is Faculty—the power of production of the tax payers, that men ought to serve the state in the degree in which they have the ability to serve themselves This can be easily seen from the case of a primitive community, where occupations are few, industries simple, the wants of the state limited, etc "Suppose" Walker says, "a work of general concern perhaps of vital importance, requires to be constructed, what should be the rule of contribution ? All the able-bodied should turn out and each man work according to his faculties in the exact way in which he could be most useful "

This is the ideal tax It is a tax which but for purely practical difficulties, would afford a perfectly satisfactory measure of the obligation of every citizen to contribute to the sustenance

and defence of the state Any mode of taxation which departs in essence from this involves a greater or smaller sacrifice of the equities of contribution It is deemed impracticable as the sole tax, in a complicated condition of industrial society As occupations multiply and the forms of production become diversified, the state cannot to advantage call upon each member by turns, to serve in person for a definite portion of each day

Walker calls the theory of taxation propounded by McCulloch as the purely economic theory of taxation because it is based on a consideration of economy rather than of equity '*McCulloch holds that the distinctive feature of the best tax is not that it is most nearly proportioned to the means of individuals, but that it is easily assessed and collected, and is at the same time most conducive to public interests*' The line of reasoning is based on the fact that "Government springs from injustice and, in the constitution of things must commit more or less injustice It is useless to pursue the equities of taxation for they will elude you It is admitted that it is impossible to distribute equally the benefits of government, why make the hopeless efforts to apportion its burden with justice? Get the best government you can, maintain it at the least expense consistently with efficiency, collect the revenue for the service by the most convenient, simple and inexpensive means By undertaking to effect an equitable apportionment of the burden through complicated methods or by personal assessment, you are not only likely to fail, you are certain, at the best, to add to the aggregate cost of the service and are in great danger of generating new and distinct evils by disturbing economic relations and obstructing the processes of production and exchange"

1910

1st Paper GENERAL ECONOMICS *Answer any six*

1 What is meant by Economic Laws? Are we justified in saying that Economic Laws are analogous to laws of nature? Discuss the position of Economics among the social sciences

2 What are the pre requisites for free circulation of labour and capital in a country? How far are these requisites present or operative in modern India?

3 Indicate the general drift of the criticism of the present industrial system by socialistic writers, and discuss the probable advantages and disadvantages of any one of the schemes advocated by contemporary socialism

4 Say what you know of the Mercantile System, and remark on the policy of International trade which it gave rise to

5 Explain *Bimetallism* and *Monometallism*, and discuss the arguments which are ordinarily urged for and against each system

6 Distinguish between market price and normal price, and indicate the causes which prevent the ready adjustment of the one to the other

7. Trace the origin of Trades Unions Is there any necessary connection between these unions and strikes? Explain the nature of any change which may be noticeable in the aims and objects of Trades Unions in recent years

8 Is there any essential distinction between direct and indirect taxes? Discuss the arguments for and against each system What do you think of a graduated income tax in a country like India? Give reasons for your answer

9 Write explanatory and critical notes on any *two* of the following —

(*a*) The young industry argument

(*b*) Malthus's doctrine of population

(*c*) The Ricardian theory of rent

Answer to Q 1

Marshall defines *economic laws* as those social laws which relate to branches of conduct in which the strength of the motive chiefly concerned can be measured by a money price

What then is natural law?

In the narrowest sense *natural laws* are the habits of nature which know absolutely no variation, such are the laws of gravitation and chemical affinity and the sciences based on such laws are called exact sciences

Economic laws are not exactly analogous to laws of nature because the latter imply a necessary relation between physical phenomena based on accurate observation and the study of all the antecedent conditions of a given phenomenon On the other hand economic laws are the results of the economic activities of men guided by habits and customs which themselves are liable to be changed at different periods In short *economic laws imply regularities in the sequence of economic phenomena which are more or less probable*—hence the importance of the condition "other things" remaining the same *In natural laws on the other hand the regularity of sequence is more certain and can be predicted* Marshall says "The laws of economics are to be compared with the laws of tides rather than with the simple and exact law of gravitation For the actions of men are so various and uncertain that the best statement of tendencies that we can make in a science of human conduct must necessarily be inexact and faulty "

Economics deals with one aspect of man's social life and being thus a part of sociology it is clearly mischievous to aim at an entire isolation of economics from other social sciences Nevertheless for many purposes Economics forms a distinct science in itself and can advantageously be studied and developed by a special body of experts (economists)—for without such specialisation the science cannot be developed—apart from other social sciences with which it is closely connected Thus although *Economics* is not wholly an independent and isolated science it is still to be regarded as a distinct division of speculative truth and can rightly be ranked as *a social science marked off by special characteristics from other social sciences*

Answer to Q 2

(I) *Increasing facilities of means of communication* (e g *good roads and railways, etc*) *and extended knowledge* possessed by the working classes as to the conditions of life in parts outside their immediate localities *are undoubtedly powerful factors that help the free circulation of labour* (*i e* the free movement of labourers) throughout a country But the effect of these has not within the last quarter of a century been much noticeable For though there have taken place a large development of railways and other facilities of locomotion with increased knowledge on the part of labourers, there has been still no appreciable

increase of migration noticed within the borders of England and Wales This shows that they are not the only impediments in the way of such migration (Census 1891) (2) *Family ties* also affect the mobility and circulation of labour to a great extent, for the influence of marriage and the existence of family life along with the labourers' natural attachments to early friends and the scenes of childhood naturally hinder movements The influence of family life, however, in some cases, is weakened by the enterprising character of the people, which is a characteristic of the Western nations (3) Another condition helping the free circulation of labour in a country is the existence of a strong government capable of maintaining peace and order within the country

As to movement from employment to employment it may be said after Marshall that the course of social evolution has greatly loosened the bonds of custom and tradition At present the chief obstacles to the vertical movement of labour from one grade to a higher grade are directly or indirectly traceable to the unequal distribution of wealth It is this that keeps the higher forms of labour in a position of monopoly The lower the grade of labour, the less able and the less willing on the average are parents to sacrifice themselves for the sake of their children As regards horizontal movement of labour between different occupations of the same grade Prof Marshall notes that the increasing use of complex machinery calling, as it does, for judgment and general intelligence tends to remove the insurmountable barriers between different departments

(II) *Regarding the movement and free circulation of capital* it may be said that *this free circulation of capital requires as its pre-requisites*—(i) supply of capital at the hands of persons who may desire to transfer it, (ii) labourers who can be transferred from employment to employment, (iii) development of exchange, (iv) existence of a good medium of exchange or money, (v) the means of shifting money from trade to trade

In the case of India (1) *the hindrances to free movements of capital and labour are being gradually reduced by the network of railways* constructed all over the country (2) Other hindrances like the conservatism of the people and caste barriers are gradually becoming things of the past (3) The wave of

industrialism that is now sweeping over the country has made itself felt, though slightly, even in villages

Indian capital is also daily losing its characteristic shyness Investment outside the presidency towns is not rare (4) Further *confidence in the Government* owing to uninterrupted peace and prosperity in the country coupled with the educative influence of foreign investments are promoting free circulation of labour and capital in a country

Answer to Q 3

The changes involved in the Industrial Revolution brought about many industrial maladjustments and economic ills in their train. Naturally some were led to criticize the whole movement and the system of economic thought which attended it Thus there arose three noted socialist reformers—* St Simon, Owen, Fourier who conceived the idea of bringing down aid to the poor from above, of regenerating mankind by educating them to live in an ideal social order guided by the wisest and best among them They were not revolutionary but appealed to the dominant classes for aid

The early French and English socialism down to 1848 was largely utopian and idealistic Moreover none of the reformers can be called 'state socialists' *i e*, socialists who accept existing governments as the agency for carrying out their programme It was Germany where the first movement towards purely *proletarian and 'scientific' socialism of the second half of the nineteenth century* began *This new socialism ridicules the utopian ideals of the earlier group and prides itself upon its scientific*

* [St Simon advocated a broad industrialism To his mind the industrial class—including all workers—had achieved the revolution and upon it depended freedom The present social classes must go The nation was to be organised on an industrial basis in which industrial chiefs should control business Government would thus be reduced to the direction of a national association for industrial purposes Mankind would then cease exploiting one another, and turn to exploit the earth

Owen believed that men are naturally good, evils are not inherent in the nature of things, but in the capitalistic system, which prevents the natural order He was an advocate of education and a better environment for working people Then his ideas grew more socialistic and he demanded the abolition of profits, speculation, etc]

realism They accept the state as the agency for applying their theories and seek to enlarge its functions accordingly

One of the chief advocates of state socialism was Lassalle, who made the phrase "iron law of wages" his own Accepting the subsistence theory of wages, he taught that under the capitalistic system the position of labour is hopeless Therefore capitalism must be abolished and co-operative association be put in its place

With Marx * Socialism took on a purely materialistic garb and became international and cosmopolitan in its scope Capital, he thinks, is opposed to labour, the latter being exploited by the former

Criticism of the existing system by socialist writers

In the midst of various theories that go by the name of socialism there is a kernel of principle that is common to all (1) *The central aim of socialism is to terminate the existing divorce of the worker from the natural sources of subsistence and of culture—Socialism* is a protest against the present economic organisation of society which gives an unduly large proportion of the nation's wealth and income to the landlords, the capitalists and the businessmen and an unduly small proportion of the nation's wealth and income to the millions of workers in a country, *it wants a fairer distribution of the nation's income among the different classes of the nation, and also a better and more scientific organisation of production* The theory is based on the historical assertion that the course of the history of social evolution has been to exclude the producing classes from the possession of land and capital and to establish a subjection of the workers who have nothing to depend on but precarious

* [His theory of capital is peculiar To him the first form of appearance of capital is money, then by purchasing labour power for less than it is worth and by the former retaining the surplus, money is converted into capital

Thus the idea of capital is part and parcel of the idea of surplus value that labour creates and capital appropriates The great aim of the capitalist is the increase of wealth through the accumulation of profits The accumulation is secured by the appropriation of what the socialists call surplus value The history of capitalistic method of production is the history of the appro priation and accumulation of surplus value]

wage labour (2) *The socialists maintain that the present system leads inevitably to social and economic anarchy, to the growth of vice and idleness among the wealthy classes and that it is tending more and more to separate society into two classes*—luxurious millionaires on one side and an enormous mass of poor proletarian labourers on the other side. To avoid all these evils and to secure a more equitable distribution of the means and appliances of happiness, the socialists propose that land and capital, which are the requisites of labour and the sources of all wealth and culture, should become the property of society and be managed by it for the general good

Advantages claimed for Socialism

(1) Under the existing system of competition the rival producers are independent of one another, each producing with a view to personal profit an amount which he thinks would find a sale—the natural result of this is that the maladjustments of demand and supply give birth to crises and other industrial evils

Under the proposed system of socialism, all goods will be produced by the state with state owned capital and land, and so the supply of all goods will be perfectly adjusted to the demand and there will be no excess or shortage of supply, no crises *Socialism thus secures a more scientific organisation of production than the present system*

(2) Secondly, the socialists urge that with the cessation of the existing system of competition much of the attending evils of this system are avoided For example under socialism there is no longer any stimulus to adulteration and waste of national capital in advertisement and other appliances to attract customers—as under socialism all goods are produced by the state and there are no rival producers competing (3) *Socialism secures a more just distribution of the nation's income because it will abolish the exploitation of the labourers* by the landlord, capitalist and employer classes There will be no private ownership of land and capital, no private industry under socialism—all would be state owned and state managed

Disadvantages of socialism

(1) Against the socialist system it might be urged that although the existing competitive production (as opposed to socialism) brings evils with it, still there are advantages Competition gives

incentive to labour and efficiency in production, whereas centralised management of industry under socialism tends to make the labourers indifferent, for they know that they have no personal interest in the profits that might accrue by their efficient work So that naturally *the national dividend (or national income) diminishes under socialism* and eventually the shares of the different agents of production

(2) Secondly, it is impossible for a centralised socialist state to come in contact with the conditions of demand all over the country So that the advantage of wise adjustment of supply to the demand which the socialists think as following out of such a system is almost insignificant On the contrary the individualistic system of production has the advantage of knowledge of the state of demand in the particular locality and can be arranged accordingly

(3) Lastly *the difficulty arises as to what principle would the government follow in a socialist state in distributing the national dividend* among the producers—(1) the principle of equal sharing among all workers, (2) the principle of payment of workers according to their needs, (3) the principle of payment of workers according to their efficiency It is difficult to gauge the efficiency of any worker and measure out wages to him, and this difficulty would be much intensified by the huge mass of workers that would be brought under the control of society in a socialist state Consequently the system instead of remedying the present evils rather intensifies them giving rise to discontent and wholesale dislocation of industry

Answer to Q 4

The economic ideas corresponding to Mercantilism do not form a system and so cannot be classed under one central idea The nearest approach to a definition would be to say that it comprises the economic views which prevailed among European statesmen from the 16th century to the latter part of the 18th century

The immediate causes that gave birth to these views may be classified under the following heads —

(1) The break-up of feudalism and the development of centralisation in the state Also the importation of gold and

silver leading to changes in price-levels and to much economic speculation

(2) Royal estates and prerogatives no longer sufficed for increased government expenses, so that taxation became necessary, and taxation was only possible by an increase in saving through greater security and the development of commerce and banking

(3) Lastly the increased wants of the new states were occasioned chiefly by the growth of standing armies, coupled with rising prices

One great purpose which dominated Mercantilism was the desire to make the state strong for the economic basis for strength wealth was given great weight, *the most important form of wealth was considered to be the precious metals or treasure;* foreign trade was generally preferred to other forms of industry as best furnishing a supply of the desired kind of wealth (*i e*, precious metals) and in measuring the success of this policy and of foreign trade great importance was attached to the so called "balance of trade"

Foreign trade policy of Mercantilism—As to the best means for a country for obtaining the desired treasure (*i e*, the precious metals) Thomas Mun wrote, "*The ordinary means to increase our wealth and treasure is by foreign trade* in which there is a proportionate excess in value of exports over imports This ought to be encouraged for upon it hangs the revenue of the king" Further a nation could not export without producing, commerce necessitated manufactures Articles of high specific value alone could bear the expense of transportation, therefore manufactures were favoured next to trade and above agriculture

Errors of Mercantilism

The conclusions to be drawn from the above are (1) that the Mercantilists were inclined to lay too much stress on the advantage of possessing gold and silver as compared with other commodities, (2) that they over estimated the relative importance of manufactures and (3) that they erred in supposing that a favourable balance of trade was beneficial in the long run (4) They are in error too, in being too much inclined to regard what one nation gained as necessarily the loss of another.

A scientific examination of the theory and practice of international trade suffices to show economists that both parties generally gain in international trade

Answer to Q 5

'Mono-metallism

The term monometallism is applied to designate a monetary system in which the standard of value consists of one metal, either gold or silver Such a system based upon gold is now found in England Silver and bronze coins are token coins and are limited in their character of legal tender Gold alone in the form of coin or of paper convertible into gold on demand is legal tender without restriction in the payment of debt

Arguments against Mono-metallism

(1) But the monometallic standard is exposed, without any such compensatory action as is found in bimetallism, to the fluctuations in value of a single metal, whether these fluctuations be due to changes in production of the metal or to alterations in the monetary policy of other countries, *e g*, Indian rupee after the demonetisation of silver in Germany So in a country *monometallism does not secure stability in the standard of value as much as bimetallism*

(2) *With regard to international transactions* monometallism, if not universally based in all countries on the same metal, fails to provide a par of exchange between different nations in foreign trade *Mono metallism does not provide a par of exchange in foreign trade between gold using and silver-using countries* To this argument of the bimetallists monometallists answer that the difficulties of exchange between gold and silver-using countries have been exaggerated

Arguments for Mono metallism

(1) Mono-metallism is simpler than bimetallism and is more easily worked in practice

(2) Gold being the dearer metal, gold mono metallism is suited to rich and economically progressive countries like Britain and the United States with their large scale of incomes and transactions

(3) *Monometallists hold that the use of a single standard is considered to attract business, at any rate of a financial nature* to the country where it is established because every one knows precisely the mode in which he will be called upon to discharge his obligations to others or that others will meet their obligations to him Under bimetallism it is the rule that payments might be made in either metal The possibility would give rise not merely to the inconvenience of being compelled on occasions to deal in international transactions with a bulkier instead of a lighter metal, but it would generate an uncertainty which would tend to drive away the business

Bimetallism

Bimetallism implies a monetary system in which standard coins of both gold and silver are freely manufactured It involves three things *first*, that the public authorities should decide upon some ratio as to the value of the two metals, *second*, that they should agree to manufacture all the gold and silver bullion presented, and mint it into coins at the ratio decided upon and *third*, that they should make such coins full legal tender for all payments, public or private

Arguments for Bimetallism—(1) *Bimetallism secures a more stable standard of value than mono-metallism*

As a remedy for fluctuations bimetallists rely upon what has been called the compensatory action of the double standard Suppose the ratio formerly established between silver and gold to be 16 to 1 and that a fall in the value of silver, temporarily makes the actual ratio, 18 to 1 It will now be profitable for all debtors to pay in silver and sell gold as bullion One result of this procedure would be a large increase in the coinage of silver and a decrease, perhaps stoppage of the coinage of gold, and the second would be a large increase in the use of silver for monetary purposes and a decrease in the use of gold A change in the relative demands for the two metals would thus be produced which would tend to counteract the effects of the fall in the value of silver and bring the ratio between the two metals on the bullion market back to that established by law That is to say, an increase in the use of one metal and a decrease in the use of the other for monetary purposes would raise the value of the first and lower that of the second On account of

the compensatory action of the double standard, the bimetallist claims that if a sufficient number of nations could be induced to adopt the bimetallic system of coinage, no variations in the relative value of the precious metals would take place The general level of prices might rise and fall on account of changes in the relative value of gold and silver and other commodities, but so far as their price relations to each other are concerned no change would take place

The bimetallic system then acts as a check upon the fluctuations in the value of both metals, but cannot entirely prevent them Sudden discovery of new sources of supply begins to affect the value of one of the metals, compensatory action commences and modifies demand for it in such a way as to counteract the fall in value and the result of this would be to prevent a change in the ratio of the two metals

(2) Bimetallism by a rise in prices benefits producers and encourages production

Some bimetallists declare that under bimetallism the total money stock is larger and increases more rapidly than under mono-metallism, and thus there will be a gradual depreciation in the value of money and rise in the prices of commodities under bimetallism which will stimulate the production of commodities by increasing the profits of producers

(3) Bimetallism by a rise in prices (and a fall in the value of money) benefits debtors

Some bimetallists maintain that bimetallism by increasing the quantity of money brings about a gradual depreciation in the value of money—and thus bimetallism benefits the debtor class by reducing the burden of their debt

Producers largely work with borrowed funds and as debtors also they are benefited by bimetallism

Arguments against bimetallism.

(1) Bimetallic countries have really one money and that the worse money

When a country accepts bimetallism, then under the operation of Gresham's law the country is left with the bad money and the other metal will go out of circulation

(2) Critics of Bimetallism urge that the relative value—the proportions in which the two metals will exchange for each other, are continually fluctuating and they inevitably do so unless it were possible to regulate the supply in such a manner that only the right proportions of each metal should be brought to the market at the same time

Answer to Q 6

The price of a commodity is always determined by demand and supply Market price as much as normal price is thus governed by the relations of demand and supply (1) The point of distinction between the two lies in the fact that *in the case of market price supply is taken to mean the stock of the commodity in question which is in hand*, i e the actual amount which is put on the market for sale The amount which each farmer or other seller offers for sale at any price is governed by his own need for money in hand and by his calculation of the present and future conditions of the market with which he is connected

As regards normal prices, when the term Normal is taken to relate to short periods of a few months or a year, *supply* means broadly what can be produced for the price in question with the existing stock of plant, personal and impersonal, in any given time As regards normal prices, when the term normal is to refer to long periods of several years, *supply* means what can be produced by plant which itself can be remuneratively produced and applied within the given time

(2) *Another point of difference is that market price constantly fluctuates from day to day as Marshall says, it is the result of a temporary equilibrium of demand and supply* For the amount which is offered in the market from day to day—the supply—varies considerably and varies in response to changes in price, but the total amount which can be supplied over a larger period

is usually fixed Thus daily equilibrium price is itself affected by an underlying and more important equilibrium price. Take as a typical case the price of cotton which fluctuates on the exchanges from day to day in response to the ever changing play of offer and demand The total amount of cotton available for the season is not a variable quantity It is so much and no more depending on the crop of that season The price, at which the whole will be disposed of, depends on its marginal utility or on the equation of supply and demand *The fluctuations in market price from day to day oscillate about this seasonal equilibrium price* (normal price for the short period) There is thus always a seasonal price around which fluctuate the market prices for shorter periods

We see, then, that market price by constant fluctuations always tends to that equilibrium at which the price would be fixed for the season because here the whole 'potential supply' is brought to play in relation to demand But owing to the intervention of some extraneous influence or other the adjustment of market price is rendered impossible

If we take a hypothetical stationary society, where demand and supply are in stable equilibrium we might have adjustment between the two prices The movement of market price away from the normal position would at once be checked and a force would be set in operation tending to bring it back to its original position But in real life, in a dynamic society, such oscillations are seldom as rhythmical as those of a stone hanging freely from a string, the comparison, Marshall says, would be more exact if the string were supposed to hang in the troubled waters of a mill race or more clearly, if the person holding the string swings his hand with movements partly rhythmical and partly arbitrary *For indeed the demand and supply schedules do not in practice remain unchanged for a long time together, but are constantly being changed So that before market price has time to adjust itself to the normal price, the position of normal has been changed already*

Answer to Q 7.

A trade union has been defined as "a continuous association of wage-earners for the purpose of maintaining or improving the conditions of their employment"

The history of trade unionism really begins in Britain from the beginning of the 18th century before which date there hardly existed anything precisely of the nature of a trade union The rise of the factory system (with large employment of machinery) about this time and the revolution which accompanied it in the industrial arrangements of the country were attended by a vast and unexpected extension of the trade union movement Employers and employed became permanently differentiated in certain important industries The principal object of the original trade unions was to secure the better enforcement of various protective laws, such as the Statute of Apprentices, which were fast falling into abeyance But when the factory system had grown up and caused these laws to be repealed, the function of trade unionism changed The workers combined no longer to enforce the law but to maintain restrictions which the law had ceased to countenance

The Trade Union Act of 1871 gave to trade unions their present status According to this act every trade union is recognised whether its objects be in restraint of trade or not, as a legitimate object of trust. Thus it can hold property both real and personal in the name of trustees The Trade Union Act as amended in 1876 relates to any temporary or permanent combinations for regulating the relations between employers and employed or for imposing restrictive conditions on the conduct of any trade or business and therefore applies to associations of employers as well as associations of workmen From 1892 onwards the progress of trade unionism can be traced statistically The depression of trade during 1892—95 brought with it some decline in trade unionism The revival of trade which began in 1896 was naturally accompanied by an increase in the strength of trade unions, but the most marked characteristic of this period was the extension and consolidation of Employers' Associations

In recent years there has been a decided tendency towards the amalgamation of trade-unions with one another, the federation of the trade-unions connected with the same industry, and the federation of trade-unions connected with different industries with a view to exercising greater force in industrial warfare

It is hardly correct to establish any direct and necessary connection between trade-unions and strikes Walker points out that there have been trade-unions which seldom resorted to strikes Some of the greatest strikes have occurred without the agency of organised trade unions It is sufficient that such an organisation exists to make the employers pay the proper wages to the labourers The costly nature of the warfare is sufficiently convincing to both the parties so that the labourers cannot and do not claim any unreasonable increment of wages

The aim of the more recent development of trade unionism is an immediate improvement in the conditions of labour, a living wage, less irregular employment, a shorter working day The new unionism is rather political, seeking to place labouring men in the seats of the legislator and the administrator

Answer to Q 8

Taxes are distinguished as *direct* when they are charged directly upon the tax-payer from whose income they are supposed to be taken *Indirect taxes* are those where it is recognised from the beginning that the individual who pays in the first instance usually passes on the charge to some one else, who may again pass it on until it finally reaches the individual who bears the burden *The income-tax is a direct tax* upon all incomes above a certain limit *Among the indirect taxes the most important are excise and customs duties* upon articles of general consumption, the principal articles almost everywhere being spirits, beer, tobacco The division is, however, far from being logical The income-tax is not in all cases paid to the state directly by the person out of whose income it comes *e g*, it is paid in the case of land and houses by the occupier Again in the case of indirect taxation there appear to be some cases where it is by no means certain that the charge is passed on Stamp duties *e g*, when it is moderate in amount, may have the effect of diminishing *pro tanto* the profits in business of the person paying them

Sidgwick says 'We can only partially succeed in making the burden of direct and indirect taxes fall where we desire, the

burden is liable to be transferred to other persons when it is intended to remain where it was first imposed, and on the other hand when it is intended to be transferred, the process of transference is liable to be tardy and incomplete' The division is thus based on no sure line of cleavage Bastable is desirous of retaining the broad line of division and observes that 'if we take the terms not as giving a complete classification of taxes but as marking the presence or absence of a certain characteristic, they may be employed with advantage, but rather to suggest reasons for discrimination than to give settled results'

Direct Taxation

(A) *Arguments for direct taxation*

In favour of direct taxation may be urged (1) the equity or justice of direct taxation which is proportioned to the income or property of the tax-payer, (2) also its *facility and small cost of collection, combined with definiteness of yield* Under it everyone knows how much he really pays and if he votes for war or any other expensive national luxury, he does so with his eyes open to what it costs him The real incidence of direct tax is everyday more generally understood and more familiarly recognised

(B) *Arguments against direct taxation*

Against direct taxation it is urged that (1) *the direct tax is unpopular* and oftentimes gives rise to much discontent, (2) the difficulty of taxing directly the poorer members of society, (3) and the inelasticity of certain forms of charge, *e g* on lands and houses the assessment of which is usually, of necessity, fixed for some years

The strongest objection, however, to raising the whole or greater part of a large revenue by direct taxes is the impossibility of assessing them fairly without a conscientious co-operation on the part of the contributors not to be hoped for in the present low state of public morality

Indirect Taxation.

(*A*) *Arguments for indirect taxation,*

(1) *One of the chief merits of indirect taxation is that it is hardly felt at the time of payment* The contribution is taken at a time and in a manner likely to be convenient to the payer It is paid at a time when he has at any rate a payment to make, it causes therefore no additional trouble or inconvenience (unless the tax be on necessaries) (2) It is available for reaching the poorer classes who cannot be taxed directly (3) and in times of prosperity is automatically expansive

(*B*) *Arguments against indirect taxation*

(1) The special disadvantage of indirect taxation is the danger of loss through the disturbance of industry (2) It is more costly to collect and more variable in its yield owing to the power of increasing or diminishing consumption of taxed commodities at will

Graduated (or progressive) taxation

The term *graduated taxation* (*or progressive taxation*) is commonly used *in contrast to proportional taxation Proportional taxation implies the same rate* on all amounts of the thing taxed whether it be property, income or anything else *Graduated taxation generally means that the rate increases* as the amount of property, income, etc, increases

This system of graduated taxation is regarded by some men as unsuitable to a poor country like India and for the following reasons :—

(1) Graduated taxation is arbitrary and uncertain and a sort of confiscation because it must end by swallowing up the whole capital The latter objection may be obviated by making the graduation itself degressive, so that it would become impossible to reach 100 p c

(2) It is a check to industry and saving For producers receiving large gross profits find after paying the heavy graduated tax that they are none the better off than the neighbour receiving less profits This will undoubtedly discourage industry and also saving to a great extent This argument is applicable to the case of India very strongly, specially because her accumulation of capital is small and slowly growing and also because she is now passing through a period of industrial transition, anything tending to hamper industry at this moment would delay the transition to an infinite extent.

(3) This system of taxation tends to augment fraud The larger the property or income, the greater the opportunity and inducement to undervalue and conceal

The theory of graduated taxation is nevertheless justifiable theoretically The possession of large fortunes or large incomes in itself affords the possessor a decided advantage in augmenting his possessions—the more he has, the greater is his *faculty* to pay, and so he should pay a higher rate (*i e* a progressive rate of taxation)

Answer to Q 9

(a) **The young industry argument**

The young industry argument advocates that it may be advantageous for a country to encourage by legislation a new or infant industry which might be profitably carried on, which is therefore sure to be carried on eventually, but whose rise within that country is prevented for the time being by artificial and accidental causes and not by natural and permanent causes For example, let us suppose that in a country the raw material for a new industry is cheap, the market for the manufactured product is near, power for machinery is abundant, the general intelligence and industry of the people such as to fit them for complex industrial operation, but the causes preventing growth of a certain manufacture, let us suppose, are, firstly, that the manufacture is new, the machinery used is unknown and complicated.

and requires skill which is not attainable in other branches of production, also the labour in the country for the new industry is yet untrained, and capital is shy and is not attracted to the new industry in sufficient quantity—and to overcome these difficulties the new or young industry requires protection from the government for a temporary period during which the young industry will grow up to full development

(b) Malthus's doctrine of population

Malthus's theory of population was the direct outcome of the circumstances of his own time. In England at that time the law of diminishing return was in operation—cultivation was advancing from the richer land to poorer land Malthus did not state the law in any very exact form but he seems to have possessed a fair conception of it

From the consideration of the law of production he turned to look at the growth and the numbers of men He noticed that there was a constant tendency in all animate life to increase beyond the nourishment prepared for it, which, if unchecked, would fill the earth in the course of a few thousand years But the tendency was held in check by necessity, in the case of man this necessity was reinforced by reason

He proceeded to prove three propositions

1 That population in a country was necessarily limited by means of subsistence

2 That population invariably increases where the means of subsistence increase, unless prevented by (i) *positive checks* (*e g*, infanticide, disease, wars, etc) which increase the number of deaths, (ii) *preventive checks* (*e g*, late marriage and voluntary restraint of different kinds) which prevent people from being born, checks which reduce the number of births

3 And Malthus concludes that people should exercise preventive checks (*e g*, voluntary restraint) and should marry late and have few children and in that way keep down the growth of population and thus prevent misery and starvation due to over-population

The first of these scarcely needs illustration The second is established by examination of a great abundance of facts extracted from the records of travellers or based upon personal investigation He classifies the checks under two heads—*positive checks* which cut off an existing population, and the *preventive checks* which hinder a population from coming into existence Of the former some like famine and disease are due to laws of nature and may be called misery and some we obviously bring upon ourselves, *e g* wars, excesses, etc The preventive check on the other hand which is peculiar to man arises from reasoning faculties which enable him to calculate distant consequences

Criticism of the Malthusian theory—

(1) *Malthus's conception of diminishing return is in the main correct, but he does not lay stress on the limiting condition of its application* It is possible that an increase of population may, while it augments the demand for goods, permit of more systematic organisation and greater division of labour in raising it It is also possible that improved methods of cultivation may follow on the application of additional capital in the form of manures or mechanical appliances so as to produce an increasing and not a diminishing return Or the land may be applied to different uses or sown with different crops (2) Besides the repeal of the Corn Laws has allowed the increased products of English manufacturing skill and industry to exchange for more abundant supplies of foreign corn England no longer depends upon the home production of corn for her food-supply *So the danger of over-population feared by Malthus does not apply at present to England* (or other rich, industrially progressive countries where population has increased but wealth has increased more than population)

(3) As regards the other parts of his argument he was perhaps more inclined to lay greater stress on the tendency of population to increase than on the strength of the positive and preventive checks

But later enquiry has emphasised the influence and importance of the effect of the standard of comfort which under the

form of moral restraint exercises an influence on marriage and the rearing of children This standard of comfort, moreover, is highly elastic, and it is constantly tending to be raised with prosperity

(c) The Ricardian theory of rent

Ricardo defines *rent* as *that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil*

Rent does not arise when on the first settling of a country there is an abundance of rich and fertile land, a very small portion of which is sufficient to supply food for the population It is only when with the progress of population land of an inferior quality or land less advantageously situated is called into cultivation that rent is paid for the use of it

He notices *two chief causes of rent* —

(1) It arises from the difference in the productive capacities of two soils, whether due to fertility or situation

(2) Secondly, it is due to the difference in the return of successive doses of capital and labour on the same soil, owing to the action of the law of diminishing return

Conclusions deduced from the rent theory:—

(1) *Rent does not enter into the price of agricultural products* which price is determined by the cost at the margin Hence high rent cannot be a cause of high price but high price is the cause of high rent

(2) Rent is due to the niggardliness of nature and arises when the fertility of soil decays and less is yielded in return for labour The rise of rent is never a cause of wealth It may be a symptom , for it always is the effect of increasing wealth and of the difficulty of providing food for an augmented population

(3) His theory of wages and profits are intimately related to his theory of rent Wages depend upon the price of food,

necessaries and conveniences required for the support of labour and his family. With a rise in the price of food, wages of labour will rise; profits also depend upon high or low wages, i.e. the price of food.

Criticisms against the Ricardian theory of rent

This Ricardian theory of rent is subjected to severe criticism. (1) *Carey urged that the historical order of cultivation assumed by Ricardo (viz., that the best land is cultivated first in a country, then the second best land, and so on) is incorrect.* Men in the early stage of civilisation occupy the poorer hillsides in preference to rich valleys. When at last the initial expenditure of draining can be met, the soils which are naturally rich are brought under cultivation.

But this criticism is merely verbal. The Ricardian theory laid down that men bring under cultivation in the first instance those soils which they consider *at the time* to possess the greatest advantage. The advantage may consist in natural fertility, or it may consist in situation or possibly in other circumstances, and the total advantage can only be determined when we take all the factors into account.

(2) Secondly, *it is criticised that the Ricardian theory of rent is based only on competition.* It is held in this theory that the landlord and tenant are respectively actuated by competitive consideration alone, that the landlord endeavours to get the highest rent and the tenant the lowest, that none of them is influenced by kindly consideration or political obligation.

But this sort of competition is seldom realised in practice in actual rents in different countries like Britain, India, etc. The influence of (i) custom modifies the action of competition in settling rent in many cases, (ii) also legislation (as in India), (iii) also public opinion (as in Britain).

(3) Thirdly, it has been said that it is not possible to discover any land which yields no rent, but only expenses of production and ordinary profits. To this it may be said that although a farm as a whole may thus pay rent, the differences in quality of its various portions are such that some may be considered to contribute nothing to that farm. These portions are marginal land.

1911

1st Paper General Economics *Answer any six*

1 Discuss the relative advantages and drawbacks of (*a*) the deductive method and (*b*) the inductive method in economic inquiries What do you consider to be the proper method of investigation in the social sciences ?

2 Give some account of the Wages fund Theory, and the controversies associated with it

3 Elucidate the Law of Diminishing Returns, and its relation to the doctrine of Rent

4 Examine the industrial effects of the growth of machinery, explaining how it has affected the social and economic condition of the working classes

5 Set forth the respective advantages and disadvantages of free competition and of monopoly

6 Discuss the arguments, economic as well as non economic, usually urged in favour of a Protectionist policy in our days

7 A Finance Minister has to raise a certain revenue by taxing commodities What are the general principles which should guide him in selecting commodities for his purpose ?

8 State the arguments for and against Factory Legislation

Answer to Q 1

The *merits of the deductive method* when applied to economic inquiries are —

(1) *It is simple* The deductive method starts from certain general data accepted as indisputable, and by a process of logical reasoning, deduces from them a series of propositions It is because of this simplicity that this method was used almost

exclusively in the early stages of the development of the science and even now is used so largely Altogether it may be said that this method has been eminently fruitful of results

(2) *It is precise* The results reached are definite and clear-cut There is no vagueness about them

The defects or drawbacks of the deductive method are—

(1) The data or first principles of the science of Economics cannot be calculated with *quantitative* exactness.

(2) No principle is known in Economics (like the parallelogram of forces in physics), according to which the effect of various economic forces in combination can be calculated

It is to be noted that both arguments relate to the quantitative character of economic laws established by deduction

(3) There is the fundamental objection that even granting that some approximate calculation is possible there is no permanent basis upon which calculation can rely The character of the objects to which the science applies is liable to fundamental changes

The *merits of the inductive method* as applied to economic inquiries are—

(1) The inductive method closely follows realities, it bases itself upon facts The inductive method merely brings out the uniformities underlying certain classes of facts

(2) It is capable of being applied in every field of economic inquiry Some industrial facts are so complex that they defy deductive generalization But there are none to which induction cannot be applied

The *defects or drawbacks of the inductive method* as applied to economic inquiries are —

(1) *Facts are very difficult to observe* for a proper use of the inductive method in the social sciences in general and Economics in particular because social and economic facts are so diverse The materials for induction have been brought together only recently by the collective work of thousands of

investigators and a training in the highly technical science of statistics is necessary in order that a right use of the materials may be made Much spade work has to be done before the highly technical instrument of the inductive method can be sed

(2) *The inductive method is inapplicable* in many cases *because of the plurality of causes and intermixture of effects* In the natural sciences this difficulty is got rid of by having recourse to experiments But there is little scope for experiments in the social sciences

(3) Induction may establish that the law is, but not why it is

(4) Many economic laws are characterised by the *relation of mutuality* To deal with relations of this kind by induction is out of the question

There is not any one method of investigation which can properly be called the method of economics. All the devices for the discovery of the relations between cause and effect, which are described in treatises of scientific method, have to be used in their turn by the economists Every method must be made serviceable in its proper place or in combination with others *The two methods, deduction and induction, must proceed hand in hand in Economics—both are wanted in Economics*

Answer to Q 2

The Wages-Fund theory

The substance of the wages-fund doctrine as maintained by English economists for fifty years (1820-1870) or so is as follows —*The total amount of wages in a country is dependent on the amount of capital in existence in that country, and on that alone* There is supposed to be at any given instant, a sum of capital which is unconditionally devoted to the payment of wages At any given moment this sum is a fixed amount—*and so there is a fixed wages fund* When this amount of capital is determined the wages total is determined Labourers are paid out of this

sum and out of this alone The whole of it is distributed without loss and *the average amount received by each labourer is therefore determined precisely by the ratio existing between the wages fund and the number of labourers in the country It necessarily followed that the only way to add to wages was to add to capital* Increase of wages to one group of labourers meant necessarily a decrease to other labourers, other things being equal

This doctrine, it goes without saying, was highly unpopular with the working classes What was, was for the best Any attempts which the working classes might make to gain better terms from their employers were either foredoomed to failure or if successful did but benefit one particular class or section of the labouring classes at the expense of all the rest

Criticisms against the wages-fund theory

A brief outline of the criticism of the doctrine is given below (1) The very idea of a wages-fund destined to be expended on the hire of labour is ridiculous An employer pays wages to purchase labour as a means to the production of wealth, not to expend a fund of which he may be in possession Expectations of the profits to be earned and not any irrevocable necessity determine him in deciding how much to spend on wages It is clear that *there is no wages-fund in the sense that it must necessarily be employed in hiring labour*

(2) The supposition that the wages-fund is a fixed predetermined amount is even more ridiculous *Whether conceived of as money or as goods, the wages-fund is seen to be a well nigh indefinitely expansible fund, and not a fixed fund* The wages fund expands as expectations of the profits to be made out of employing labour expand Inventions leading to improvements in machinery, an increase in the industrial efficiency of labourers, the evolving of better industrial organization—all these, among others, increase the expectations of profits and the so called wages fund The wages-fund conceived of as goods is no less capable of expansion, contrary to what was previously supposed, the quantities of most goods of any kind in existence can be very rapidly

increased and secondly, the goods of the world cannot be divided into workmen's goods and other goods

(3) The fact is that wages form a share of the national dividend and any cause tending towards an increase in the national dividend or a relative increase in the share of the national dividend that goes to labour increases wages The *increase of capital which brings about an increase in the so called wages-fund* is thus in reality, *only one among many influences that cause an increase in wages*

Answer to Q 3

The Law of Diminishing Return states that after a certain point has been passed an increase in the capital and labour applied to land causes, in general, a less than proportionate increase in the amount of produce raised, unless it happens to coincide with an improvement in the arts of agriculture As a matter of fact agricultural improvements are constantly counteracting this tendency and historically, no suggestion of any actual diminution of returns to agricultural industry is intended The law is merely equivalent to the proposition that *in each stage of progress there is a limit beyond which the capital and labour expended upon a given area (for its cultivation) cannot be increased without causing a diminution of return*

Were it otherwise every farmer would save most of his rent by applying all his capital and labour to a small part of his land

To illustrate, suppose by applying a given amount of capital and labour to a certain piece of land the produce is 10 maunds, by applying double the amount of capital and labour the produce will, of course, be more than 10 maunds but not as much as 20 maunds *The increase in the produce will be less than in proportion to the increase in the capital and labour*, i e, there will be a diminution of return Should an agricultural improvement take place in the interval the tendency to diminishing return may be counteracted and according to the importance of the improvement, the produce may be 20 maunds or more But barring such, the tendency to diminishing return operates

The modification implied in the phrase "after a certain point has been passed in the cultivation of land" is important Up to

a certain point an increase in the capital and labour applied to land will cause a more than proportionate increase in the amount of produce raised, for if too little capital and labour be applied the crops may be smothered by weeds.

5 *The rent of land would not emerge if its cultivation was not subject to the law of diminishing return* If the law of increasing return or even constant return applied to land then all the agricultural produce needed in a country could be obtained from the best land and the need of having recourse to land of inferior quality would not arise—and so there would be no rent in the country Also, what is equally important, the return at the intensive margin would not, by hypothesis, fall Thus no rent will be paid

(a) *If we only suppose that the law of diminishing return applies to the cultivation of land, instantly rents become possible even if all land be supposed to be of uniform quality* For as the point of diminishing return is passed the return to each succeeding dose of capital and labour diminishes, so that if the land is appropriated the owner can exact a rent measured by the difference between the aggregate produce and the aggregate of the *product* of the produce of the marginal dose into the number of doses

(b) *As a matter of fact land in a country is not of one uniform quality* but is classified into various different grades and *so soon as the best land is cultivated beyond the point of diminishing return cultivation spreads to inferior soils—and so rent is paid on the superior quality of land* Rent can thus in practice be measured from either the intensive or the extensive margin

Answer to Q 4

1 The *growth of machinery promotes production* for the following reasons:—

(1) The stupendous forces of nature can be pressed into the service of man with the aid of machinery and thus more wealth can be produced

(2) For much work human limbs are insufficiently rigid or insensible or are not untiring enough or delicate enough

(3) Machinery can work faster than human limbs can move

(4) Machinery works more accurately than human beings

(5) The use of machinery extends the division of labour

The *economic effects of the growth of machinery on labour* are —

(1) In the particular trade or trades in which more machinery comes to be used, it *(machinery) displaces labour and, therefore, works injuriously as regards labour* But the benefits of improved methods of production (due to machinery) are ultimately diffused throughout society at large in the form of larger supplies of goods and the fuller and better satisfaction of wants, and the labourers as a class, as members of the society, share in these advantages as consumers

(2) Machinery weakens the barriers between different trades. The machinery used in different trades are all modifications of certain familiar types and a man who has worked at any one trade can with little experience work in some other The mobility of labour as between different trades has thus been greatly increased

The social effects of the growth of machinery are—

(1) Machinery increases the demand for general intelligence Machinery alters fast and the operative's understanding must keep pace with it

(2) Machinery relieves the strain on human muscles Work in a factory is less exhausting than that of manual workers

(3) Machinery takes over monotonous work The work which is uniform and monotonous is gradually taken over by the machine

(4) Machinery lessens monotony of life The social surroundings of a factory stimulate mental activity in and out of working hours

(5) Machine production is antagonistic to the development of art Machine production means uniform production

Answer to Q 5

The advantages of free competition are—

(1) Under a competitive regime each individual is stimulated by self-interest to do his best for the supply of others' wants

in order that by the money obtained his own wants may be the better satisfied It is difficult to find an adequate substitute for *self-interest* (guiding competition) as a *motive power in production*

(2) Competition has the advantage of tending to a *definite determinate adjustment*, affording a simple intelligible rule, *laissez faire* It has been very well said "there is no way of deciding what is a fair day's wages" outside competition In fact, the theories of value and distribution rest on a presumption of the existence of competition and they cannot be applied if competition ceased *The determination of prices and of the shares in distribution would be almost impossible on a basis other than that of competition*

(3) *Competition effects a just and equitable distribution* Whether by wages, profits or interest, equal sacrifices will secure an equal real reward, however dissimilar the services by which they are represented or the money-payment by which their reward is given

(4) It is to be remembered that *competition has brought out some of the best qualities in human nature*, industry and endurance, self-reliance, courage and enterprise

The *objections to competition* are—

(1) Though the incentive of self-interest is strong and all pervading yet the channels through which it works itself out are *wasteful and expensive* *Competition involves much waste of effort in advertising and search for employment* *Also much waste of capital*, as when two railways are made where one would be sufficient

(2) *Competition also defeats itself* when the successful competitor having crushed out his rivals becomes a monopolist

(3) The advantage claimed under the third heading rests on the supposition that all parties are intelligent enough to know their own interest and free to make their own terms Such absolutely free competition nowhere exists and in many cases, the conditions are conspicuously wanting, *e g* "sweated" labourers In these circumstances the distribution effected on an unwarranted supposition of free competition is far from just and equitable

(4) The "fitness" which economic competition tests is not of the highest order Success may be due to cleverness in attracting business or to a lower standard of comfort That a degraded standard may result from restricted competition is evidenced by Booth's "Life and Labour in East London"

The *advantages of monopoly are*—

(1) It prevents the wastes of competition

(2) It secures the economies of large-scale production

(3) It mitigates fluctuations in trades by the adaptation of production to demand

The *objections* are—

(1) The *stimulus to improvement and progress is lacking in monopoly business* The monopolist is content to feed fat on the huge profits he earns without troubling about improvements which may render obsolete his costly plant

(2) Even if economies in production are effected the consumers do not get the benefit in lower prices On the other hand, as a rule, other things being equal, *monopoly prices are higher than competitive prices*

(3) Under monopoly production is curtailed and this means in turn reduced employment of the factors of production, land labour and capital in the branch of business affected or a larger supply of the factors for competitive industries This will mean a lowering of the margin of production in them and lower wages and lower interest Thus the rise of monopoly profits tends to increase rent and to reduce wages and interest Thus from the point of view of the whole community *monopoly profit signifies an uneconomical distribution of the factors of production*

Answer to Q 6.

Purely economic arguments in favour of protection are—

(1) *The infant industry argument* There is such a thing as *industrial inertia* An infant industry has to contend with great difficulties , labour is inexperienced, the appropriate forms of capital cannot be easily obtained and the entrepreneurs themselves are new to the business Protection is necessary in order that these may be overcome Lastly protection of an infant

industry should ordinarily hasten its development if only because it would keep out the dumped goods

This argument not only justifies protection to infant industries actually started but also (2) adoption of a general policy of protection to bring about the transition from an agricultural stage to the manufacturing stage *List* advanced this *argument* maintaining that the adoption of a policy of protection would develop the necessary industrial qualities Both arguments assume that protection will be ultimately profitable as the industries thus established will pay their way in the long run and would not require protection

Other aspects of the same argument are that (3) *protection raises wages* and that (4) *protection causes an importation of foreign capital* As protection hastens industrial development it follows that the national dividend is enlarged and, therefore, wages must rise Further the productivity of industry having increased foreign capital will be attracted in the expectation of a larger return and this in turn is the reason why the national dividend should be enlarged

Argument from vested interests

(5) Protection has also been urged on the ground of protecting industries already established which have passed the stage of "infancy" This is equivalent to a demand for the protecting of vested interests

By way of criticism it may be remarked that this argument does not pretend to throw any light on the merits of the policy, in itself If by the incurring of a small cost in protection large vested interests of capital and labour may be protected it is advisable to incur the cost, considering the immobility of fixed capital and many kinds of skilled labour But the argument is certainly not one of general validity and should not find much support in a progressive community

Financial argument

(6) This is applicable only in the case of that form of protection which proceeds by way of customs duties It furnishes a means of public revenue that is easy to collect, highly productive and causes little complaint on the part of the public There is the further advantage that some part of it is paid by the foreigner

Political arguments

In the regulation of trade and commerce questions of national strength must be given weight equally with questions of national wealth (7) *Diversification of industrial pursuits* and (8) *conservation of natural resources* are matters of national importance and protection should be adopted to these ends They are both necessary conditions of economic self sufficiency which is indispensable in time of war There is the further argument that the nation is an organism and that if it would rise to a rich and intense life it must multiply its forms of industrial activity—a country in which all men followed the same occupation would be an amorphous mass Lastly it is said, that (9) *domestic trade draws the citizens of a country together* while international trade tends to their separation

Answer to Q 7

The *fundamental principle of taxation of commodities* is that it accepts the demand of the taxpayer for consumable goods as the standard by which to measure his ability to contribute to the public expenditures In other words, *taxation should be on the basis of expenditure or the individual consumption of wealth*

The rich man and the poor man spend about equal amounts on the necessaries of life but their aggregate expenditures are very different As a matter of fact the rich man's aggregate expenditure is so many times over the poor man's aggregate expenditure that if taxation be imposed on the basis of expenditure, the rich man should bear the most part of the burden and the poor man let off almost completely So that if commodities which are necessaries of life are alone taxed great injustice will be done to the poor man, as the rich man and the poor man will be paying about the same in general

The general principle is, therefore, that the *taxation of commodities which are necessaries of life should be avoided* If a large revenue is required from the taxation of commodities and if they must be taxed, heavy taxes should simultaneously be laid on the luxuries of the rich In other words, care should be taken that the taxes paid by different classes bear the same proportion to their respective expenditures

The argument applies with greater force to the case of women and children Ordinarily they cannot be organized so

strongly in trade unions as men. Also they are terribly apt to commit themselves to excessive exertions. Finally upon them the future of the race is peculiarly dependent.

(2) *Political.* Not only philanthropic motives but political considerations demand that the large masses of population engaged in factory industries should live the life of normal human beings. A discontented, poverty-stricken and degraded population is an element of extreme weakness to the state.

(3) *Economic.* Regulations in the interests of safety, health, and comfort by way of limitation of hours of labour and insistence upon sanitary conditions in the factory and in the workmen's dwellings may actually increase the product per head *in the long run.* Framed along proper lines Factory Legislation not only secures more pleasant conditions of work but also creates conditions enabling workers to earn higher wages by increasing their marginal product.

The *arguments against Factory Legislation* are—

(1) *Political.* Factory Legislation restrains individual liberty. It coerces the employer into fencing off dangerous machinery, compels him to conform to certain sanitary laws, etc., on the other hand it restricts the right of freedom of contract of the worker as regards hours of labour.

By way of criticism, it may be remarked that political philosophers do not now recognize any absolute right to liberty. Liberty to do evil to oneself or to others must be checked. While restriction and regulation are obstructive as against an imagined condition of perfect freedom these may actually increase the ease and readiness of movement in a state where obstructions exist on every hand.

(2) *Economic.* A shortening of the hours of labour, it is said, will only in exceptional cases lead to a greater aggregate output. As a rule, production will diminish and wages must fall.

Granting that this represents the correct view it is criticized that beyond a certain point additional leisure is more valuable than additional bread. And as a matter of fact Factory legislation has more often tended to increase production than to diminish it.

1912

1 What are the influences which affect the accumulation of wealth in a country? Illustrate your answer by reference to the case of England in recent years

The causes which control the accumulation of wealth differ widely in different countries and different ages They are not quite the same even among any two classes in the same country, because they depend much on *social opinion and religious habits* For instance, in India peasants save in order to be able to indulge in lavish festivities at funerals and marriages, they never invest their savings and they have no wish to grow rich by making some permanent provision for the distant future On the other hand among the corresponding classes in France and England there is an eagerness for leaving a 'competence' to children and large sums are accumulated and invested It was not always so, however, it is easy to recollect a time when war and a bad system of Poor Law had made the very same classes improvident to a degree Finally how much the different classes differ in respect of saving habits may be gathered from the fact that in this respect the middle classes in India approximate more to the farmers in England than to their own farmer class

Thus it is clear that the influences affecting the growth of wealth are various and many of them relate to a particular class, in a particular country, in a particular age Yet there is a number of broad influences whose operation is not thus confined These broad influences are given below

(1) The chief motive of saving is *family affection* This is shown both by the huge amounts saved in the form of insurance policies and also by the fact that men seldom spend more than the income that comes in from their savings It is sometimes supposed that industrial civilization is destructive of family affection As a matter of fact we find that in England, which is the most industrial country in the world this motive has gained in intensity and people are eager to save more than ever before

(2) Wealth grows with the *growth of the habit of distinctly realizing the future* The future is uncertain, for one thing, health may fail and the earning power may be impaired When

people come to think in this way they are just in the frame of mind to save It is a characteristic of civilized man that he has the "telescopic faculty" or the faculty of realising the future As civilisation grows the telescopic faculty or saving instinct is sharpened This has also reference to the growth of wealth in England in recent years

(3) *Security* is a very important condition of saving People will have no heart to save if they cannot rest assured that they and their children would enjoy what they save It is beyond doubt that the great growth in wealth in modern times would not have taken place if security of property had not been established as firmly as it has in fact been Socialistic laws in so far as they aim at confiscation of property thus discourage saving In England, there has been complete security of property and a scrupulous regard for rights of property and vested interests on the part of government This is one more cause of the growth of wealth in England

(4) *Opportunities for the safe investment of capital* greatly promote saving Land and Building societies, co operative societies and postal savings banks have induced many people to save who would not otherwise have attempted it

Besides these, in England, the Working-men's Insurance Act is creating a vast fund of wealth in recent years

(5) It goes without saying that the most important influence affecting the growth of wealth is *the people's power to save* The larger the surplus of production over the necessaries of life, the larger is the power to save and the larger, other things being equal, will be the amount saved The most important cause of the huge growth of wealth in England in recent years is to be found in the greatly increased capacity of saving of the people

2 Explain and examine (*a*) the Malthusian doctrine of population (*b*) The Ricardian theory of rent

(*a*) The Malthusian doctrine of population states that *population has a constant tendency to increase beyond the means of subsistence* To prevent over-population 'preventive' checks leading to decreasing births must be applied, or, the 'positive' check to population by famine, epidemics or war will be brought into being 'Preventive' checks are of two sorts —

(1) Moral restraint, involving the abstention from an early marriage while leading a life of moral purity

(2) Vice, involving promiscuous intercourse, improper acts, etc

Malthus urged moral restraint in order that overpopulation might be prevented without recourse being had to vice

Since Malthus wrote profound changes have taken place in the industrial world, but his theory is still, in essentials, sound Production has increased beyond all expectation, not only in manufactures but in agriculture also So that it need not be the fear of misery which prevents people from marrying early and rearing a family But parallel with the growth of production there has been evolved the idea of the "standard of living" And now even the ordinary labourer would not think of rearing a family until he is assured that he would be able to maintain his "standard of living" Indeed in case of the higher classes this is tending to keep the numbers almost stationary So far, then, *the standard of living has been effective in impelling men to apply the preventive check, and that at a much earlier stage than Malthus supposed Further the change has taken place by a process different from that which Malthus recommended* The fall in the birth rate has taken place with a marriage rate nearly stationary Married couples have fewer children than before, by deliberate intent Vice, rather than moral restraint, is the means sought There is, therefore, room for Malthus's teaching

(*b*) The Ricardian theory of rent embraces two ideas: a resort to inferior soils and an extensive margin, and a law of diminishing return leading to an intensive margin When all the best land is appropriated (and cultivated beyond the point where diminishing returns begin), recourse must be had to the second best land or to an intensive cultivation of the superior land under diminishing returns So soon as this happens in either case, each acre of the superior land becomes a matter of importance, because if it were withdrawn from cultivation the labour and capital which were employed in its cultivation must then be employed on some other land of the same grade securing a smaller product under the law of diminishing returns or on some of the second best land where it cannot produce as much as it had been doing on the best grade Consequently

each acre of the superior land will bear a rent measured by what it would yield and what the same labour and capital would produce on land at the intensive or extensive margin.

It is an error to believe that the Ricardian theory implies that rent is due to the differences in productivity of different areas of land Rent would still exist if there were no differences, *i e* if land were all of the same grade *If such land existed in such limited quantities that, in order to supply the demand for goods, it was necessary to cultivate it beyond the point of diminishing returns, it would all command a rent* An accurate statement of Ricardian theory is that rent is due to the scarcity of land of the better grades, for this will give rise to rent whether there happen to be inferior grades or not.

There are *two main criticisms* of the Ricardian theory of rent—

(1) Ricardo formulates his theory under assumed conditions of equal intensivity of cultivation As a matter of fact, however, the best land is always more intensively cultivated when land of the secondary quality comes into cultivation

(2) Like other economic laws, this law is only true hypothetically, that is, upon the conditions assumed, *viz* that the owners and occupiers of land, each for himself, fully understand their own pecuniary interests and will unflinchingly seek and unfailingly find their best market But this is more than was ever realized in any country In other words, this law has little direct application to actual conditions

3 What are the circumstances which favour localization of industries and what are the advantages which result from it? Define a market, and indicate the characteristics of commodities for which there is a wide market

The circumstances favouring localization of industries are—

(1) *Physical conditions*, such as the character of the climate and the soil or the existence of mines and quarries in the neighbourhood or within easy access by land or water Sakchi was selected for the location of the Tata Iron Works because there is ore in the vicinity and coking coal within easy access by rail Again one reason of the English textile industry being localized

at Lancashire is that the climate of the district is peculiarly suitable for fine weaving

(2) *Transportation* Importing and exporting industries gain from being near ports The localization of the jute manufacturing industry about Calcutta is an illustration in point

(3) *Patronage of a court and settlement of artisans* In early times this was the most important circumstances determining the localization of industries The silk industry at Murshidabad, the muslin industry at Dacca readily suggest themselves as illustrations

The advantages of localized industries are—

(1) *Hereditary skill* The mysteries of the trade become no mysteries, but are as it were, in the air, and children learn many of them unconsciously.

(2) *Local market for skill* From this both the employers and the employees gain Good work is rightly appreciated, inventions and improvements have their merits properly discussed Employers find a good choice of workers, while employees find a good market for their skill

(3) *Specialized machinery and subsidiary trades* Where there is a large aggregate production of the same kind, though the production in any individual business is not large, specialized machinery may be used and much economy effected. It becomes the business of subsidiary trades to erect specialized machinery of this sort [For an answer to the latter part of the question see answer to Q 5, 1915]

4 Give an account of the functions of the modern employer, and of the services rendered by skilful business management

The functions of the modern employer are three —

(1) He decides what undertakings to start and on what scale In other words, he arranges the general plan of the business and governs its *policy*

(2) He brings together the capital and labour required for the work, *i e* he *co-ordinates* the factors of production

(3) He undertakes the *risks* of the business The direction of policy and the undertaking of risks go together

These are the distinctive functions of the entrepreneur Many modern employers, especially the small ones also exercise the functions of managers by superintending the details of the business

The money measure of the services of business management is the profit earned by the entrepreneur It is well known that the average profit is quite large and that profits sometimes amount to fabulous sums The employer, it is therefore clear, does valuable economic services What are these ? (1) The highest class of employers shows such *a power of insight* in connection with the first function as almost to seem to have the power of foresight (2) With reference to the second function they have such *a command over men* that all with whom they have to do acquire vigour from their contact and work for them as they would not work for others They also rouse the interests of capitalists in the business and secure the needed capital at cheap terms (3) With reference to the third function they are so resolute and firm in temper that apprehensions and alarms never cause them to relax their hold or change their course They *face risks boldly and with judgment* and incur the minimum losses

To sum up, the employer vastly increases the efficiency of production by increasing the efficiency of each of the factors under his control and by co ordinating them efficiently *He saves much waste and creates new forces*

√5 What are the considerations which should have weight with a finance minister in determining (*a*) the issue (*b*) the conversion and (*c*) the payment of public debt ?

(*a*) *The issue of public debt—*

Public debts should not be required for meeting the ordinary current expenses of the government, that way lies national bankruptcy *They may be contracted for three causes*—(1) to meet a *temporary necessity*, (2) to meet a *special emergency*, (3) for the *construction of public works*

A finance minister should weigh the following arguments against the issue of a public debt and judge whether the need is great to justify his overruling them

Objections to the issue of a public debt—

(1)—*Political.*—The result of borrowing is to conceal from he nation the full effects of the policy and the course of action f the government In the case of weak states there is the irther objection that their autonomy may be endangered by the ontraction of foreign loans

(2) *Social*—The existence of public debt is a means by hich the rich may keep their wealth intact with no industry or sk and with pretty good profits by way of interest It thus nds to perpetuate class distinctions

(3) *Industrial*—The creation of a public debt unless contract- l for the construction of public works means that a consider- le volume of capital is diverted from industry So far it is jurious to industry

(*b*) *The conversion of public debt*

The conversion of public debt means the replacing of the *isting stock by another bearing a lower rate of interest*

The opportunity for conversion may be looked for when the ice of a redeemable stock stands *steadily* at or barely above ir The course of prices of other government stocks which e free from the liability to redemption must be watched by e government in order to determine (1) whether the conver- on of the existing stock is feasible, (2) to what extent the duction in the rate of interest may be carried For instance, 1888, Mr Goschen found that the 3% stock, liable to redemp- on, was well above par but that it remained almost in a station- y position relative to the upward movement of the $2\frac{1}{2}$% stock hich was not likely at the time to be redeemed It was clear iat the government could certainly borrow at less than 3%, *i e* iat conversion was feasible As the $2\frac{1}{2}$% stock was a few points elow par it was resolved to reduce the rate of interest to $2\frac{3}{4}$% nd after a period of 14 years, to $2\frac{1}{2}$%, it being expected that an nprovement in the government credit to that extent would ike place in the interval

✓(*c*) *The payment of public debt*

It is generally agreed that *floating public debts* to meet tem orary necessities *should be paid off* But the greater part of ublic debt contracted for special emergencies or for the con- ruction of public works is *funded* and quasi-permanent in nature nd the following *objections to repayment* have been urged—

(1) It is said that the country gains more by a remission of taxation than by applying an equal amount to the repayment of debt Public Debts incurred for good reasons are no sign of weakness and need not be wiped off But every care should be taken to increase the country's resources and to avoid causing disturbance to the country's economic system by taxation

It is also urged that a public debt affords a convenient form of investment, giving complete security with a moderate rate of interest

(3) The existence of public debt materially assists the establishment and provision of banking facilities

(4) The burden of the debt decreases from year to year by the depreciation of the monetary standard used

The objections certainly carry great weight, especially the first The best modern opinion does not favour the payment of any but the floating debts A finance minister who wants to repay public debts will have to run counter to it. As a matter of fact, the general tendency all over Europe before the war was towards an increase in the public debt, no one thought of repayment As the present war has already quadrupled their amounts many years must pass before a minister is again called upon to face this problem

6 Discuss some of the cases where limitations on the freedom of trade may be desirable

This question has been discussed partly in the answer to Q 9, 1913, sections (1) and (2) and also partly in the answer to Q 6, 1911, section (3)

7 Explain fully and accurately (*a*) balance of trade (*b*) progressive taxation (*c*) profit-sharing (*d*) commercial crises

(*a*) *The balance of trade*

The balance of trade is the name given to the relation between the value of the imports and value of the exports In computing the values of imports and exports it is not sufficient to take the values as recorded in the customs house statistics For there are elements in exports and imports which are not thus recorded and which, accordingly, have been given the name of "invisible imports and exports" They are (1) loans,

securities, finance bills, etc, (2) interest due on outstanding account, (3) the services of shipping, (4) personal services An accurate calculation of the balance of trade between any two countries must take into account these four items besides the two, viz merchandise and specie recorded in customs house statistics

(*b*) Progressive taxation See answer to Q 9, 1914

(*c*) Profit sharing See answer to Q 8, 1913

(*d*) *Commercial crises*

'Times of difficulty in commercial matters, when pressure becomes acute, are termed crises' Production has its ups and downs, periods of brisk business are followed by periods of stagnation or crises

It is remarkable that the intervals between fluctuations are not of quite uncertain duration, there is some sort of periodicity in fluctuations Two explanations have been put forward to account for the fact—(*1*) the objective explanation looks primarily to external events, *e g*, climatic conditions Bad agricultural seasons occur in cycles and give rise to all-round depression in trade and finally to crises (*2*) the subjective explanation lays stress on the theory of the communication of moods in the business world Despair is catching, failure and panic breed panic and failure

8 Discuss the following proposition —The value of money like the value of anything else, is purely a question of demand and supply

This is Walker's statement of the theory of the value of money The general theory of value applies to money, only we have to be careful to define what is the demand for, and what is the supply of, money Thus if the demand for money rises by reason of an increase in the volume of products to be exchanged or by reason of a decrease in the volume of exchanges done on a credit basis, the value of money will rise, other things being equal On the contrary, if the demand diminishes by changes taking place in the opposite direction, the value of money will fall, other things being equal

Again if the supply of money increases either by way of an increase in the amount of money or by way of an increase in

the rapidity of circulation the value of money will fall, other things being equal On the contrary, if the supply of money decreases by changes taking place in the opposite direction the value of money will rise, other things being equal

Walker's opinion is sound, *viz* that the general theory of value applies to money The Quantity theory of money, *viz* other things being equal, the value of money, is inversely proportional to the supply of money, is merely a simplified statement, the simplification being possible from the fact that the elasticity of the demand for money is unity Similarly Fisher's Equation of Exchange is also another way of stating the fundamental truth expressed by Walker Walker regarding the use of credit as diminishing the demand for money and Fisher considering it as increasing the money supply Both are equally valid There is thus one true theory of money though, of course, there are many equally valid ways of expressing the truth

9 Examine the economic influences of strikes, with special reference to their effects on wages

Influence of strikes on wages As a rule, wages keep at a level lower than the value of the marginal product of labour either because of the force of custom or because of the combination among employers Well organized strikes are effective in raising wages, if not up to the value of the marginal product of labour at least to some extent The coercion consists in the sudden interruption of labour and the injury which results to the employer

Strikes are not only effective in bringing wages up to the mark but they also indirectly benefit labourers by securing better conditions of work As a result of them men acquire confidence in themselves and trust in each other, the masters are taught respect for their men and a reasonable fear of them For instance even an unsuccessful strike may make employers more moderate, considerate and conciliatory, as they recall the anxieties, the struggles and the sacrifices of the conflict

Influence of strikes on profits

The element of profits which is obtained by employers by robbing workers of a part of their dues has unquestionably dis-

appeared as a result of strikes On the part of employers it has been urged that the remedy has proceeded too far and that the workers not content with exacting their rightful wages (=the value of the marginal product of their labour) have begun to encroach on legitimate profits The position has been reversed; formerly entrepreneurs robbed workers of a part of their wages, now the workers rob entrepreneurs of a part of their profits It is doubtful, however, whether the combination of labour is as strong as the existence of this state of affairs would imply

Influence of strikes on cost of production

Strikes are wholly a destructive agency Production is brought to a stand-still and capital and enterprise are constrained to remain idle. Further, Marshall thinks that even this direct loss is small relatively to the large and permanent loss caused by the uncertainty and friction which strikes bring into business At first sight it, therefore, appears that strikes injure production and raise the cost of production and price

But there is a consideration which considerably lessens the force of the foregoing argument There is no more fruitful stimulus to progress in machinery than strikes Automatic machinery is invented to dispense with the services of labour and a great impetus is thus given to production, thus the cost of production is lowered

On the whole we may conclude that there is not much ground for supposing that strikes increase the cost of production

1913

1 Describe the main features of developed present-day economic societies

The distinctive characteristic of our economic life is *private*, not public, *enterprise* The cultivation of the soil, the exploitation of the mines, transportation, the various stages of manufacture, and the distribution of the finished products are all left to private initiative

A most remarkable feature of present-day power production is the extent to which *division of labour and industrial specialisa-*

-tion have been carried This implies mutual dependence an each individual necessarily relies upon many others to complete his own one sided economic activity But to a great extent this process of exchange is automatic In part, also, this specialisation of work is responsible for the division of society into classes

The motive power behind modern industrial society is private enterprise, the method is power manufacture and specialisation

To get a vivid idea of the present industrial system *we need further to analyse the characteristics of private enterprise,* the peculiar virtues of the entrepreneur There are a certain independence and habit of choosing one's own course for oneself, a self-reliance, a deliberation and yet a promptness of choice and judgment and a habit of forecasting the future and of shaping one's course with reference to future aims *Free choice, deliberation, self-reliance and forethought are thus the leading characteristics of modern business enterprise* Actuated by these motives entrepreneurs compete with one another, on the other hand the same motives also often lead to co operation and combination It has already been stated that the division of labour necessarily implies ultimate co operation Competition thus merely determines the conditions on which co operation takes place It is, therefore, misleading to say that competition is the leading characteristic of modern industrial societies The fact is that modern business is characterised by more self-reliant habits, more fore thought, more deliberate and free choice In a word our age is an age of economic freedom

Finally, it may be pointed out that the conduct of private enterprises is continually being interfered with by the state *Public authority* may be regarded as one of the forces governing the economic process It sets limitations upon the rights of private property, inheritance and contract which are the very foundation stones of private enterprise The state also undertakes functions which may properly be regarded as positive It provides roads and other transportation systems, sets up experimental farms, encourages research, increases facilities for knowledge and training and takes charge of some industries completely *Both in what it does and in what it prohibits the state is largely responsible for the shaping of the industrial organisation*

2 Critically attempt a full definition of wealth How would ou estimate a nation's wealth ?

(I) Wealth comprises all articles of value and nothing else As has been very happily expressed the words wealth and value ffer as substance and attribute Now value implies both tility and scarcity and it can arise only in case of transferable oods Thus the *attributes of wealth are three in number—1) utility, (2) scarcity, (3) transferability*

It is not important that a catalogue of the articles which nake up the wealth of an individual or community should be ormed It is not fatal to a definition of wealth that certain objects should be found which seem to fall across the line of demarcation But it is necessary to indicate in a general way how the definition would work out in practice

Goods are defined as all desirable commodities and they are classified as follow —

Goods	External	Material	transferable	(1)
			non-transferable	(2)
		Personal	transferable	(3)
			non transferable	(4)
	Internal	— Personal	— non-transferable	(5)

According to the definition given, goods which are scarce or valuable and come under the first and third categories are wealth Every non-transferable good not to speak of every internal good is excluded as also free goods Thus rice, cloth, house, goodwill are wealth, air, the dykes of Holland, industrial qualities are not wealth

The above definition of wealth proceeds from the individual point of view

(II) When regarding *wealth from the social standpoint* this definition, it is argued, should be modified The tests of transferability and scarcity should be set aside and external material non-transferable goods, *e g* roads, river systems, dykes, climate, etc, should be included

(III) Some even go further and declare that in estimating *national wealth* as distinguished from social wealth benefits

of civil and military security, rights to justice, facilities for education, in a word, the organization of a free state should be regarded as forming part of the national wealth

It has been pointed out, however, that if we go in this way we should not know where to end To be sure, there are things which are better than wealth, e g free goods, gifts of nature, such as air, sunlight, net work of rivers, etc But *does not it sound very contradictory to regard free goods as wealth?* Moreover, the concept of wealth should not include such a vague and intangible item as governmental organisation Certainly it is a prime condition of wealth production but it is not wealth *There are things better than wealth but which are not wealth* It is best to adhere to the definition given, under all circumstances, and to regard only those things as wealth which satisfy the tests there set down

National wealth has been defined to include the individual as well as the collective property of its members

Estimates of wealth have to be based almost exclusively on estimates of income which are capitalized at various numbers of years' purchase This number is chosen with reference to (1) the general rate of interest, (2) the character of the income The higher the rate of interest the less the number of years' purchase, the more permanent the income the more the number of years' purchase

In estimating the aggregate sum of the individual wealth of the members of a community it is convenient to omit all debts and other obligations due from one member of a nation to another

By proceeding in this way we get in reality the sum of the value of property rights It is to be noted that *much that is included in the sum of property rights is wealth from the individual standpoint only* but not from the social standpoint In the case of valuation of a business the value consists largely of patent or monopolistic privileges So also in regard to land values The area and quality of land in any old country is much the same as always but the value goes on increasing at a huge rate So that an increase in land value is not really an increase of wealth but indicates a greater relative scarcity of land

3. Write critical notes on (*a*) the policy of making work, (*b*) over-capitalization and its evils, (*c*) the concept of consumer's surplus, (*d*) expenditure *versus* investment as helps to industry

(a) The policy of making work This consists in the idea that an effective way of providing work for the unemployed is for every man at work to decrease the amount of work he does It is argued that notwithstanding the diminution of work by each worker he will get the same wages as before, while the unemployed will get employment at similar wages, *the assumption being that in spite of the rise in wages the same amount of labour will be demanded.*

The theory may be criticized by pointing out that in a competitive system of industry wages equal the marginal product of labour in the long run. And if each worker works less he must ultimately be satisfied with lower wages If the policy of making work is largely followed the level of wages must fall, at the same time it is true some of the unemployed will get employment but at this lower level of wages

(*b*) Over-capitalization and its evils

In the cases of many corporations the nominal capital does not represent the actual amount of the capital invested, it is much larger When this happens there is said to be over-capitalization

The evils of over-capitalization are two—

(1) *Over-capitalization is a method of concealing monopoly profits from the public Large dividends may be paid without exceeding a moderate rate of return on nominal capitalization* If a monopoly should earn 10 per cent on the actual investment by inflating the capital fourfold, the rate of dividend may be shown as 10 per cent only—a 10 per cent dividend as the nominal capital would not attract notice, but a 40 per cent dividend on the actual capital would at once raise an outcry

(2) *From the point of view of the investor also over capitalization is deceptive* A bonafide investor buys at par a share of an over-capitalized corporation paying 10 per cent dividend He has some idea that he has bought an inflated stock but he has no means of knowing to what extent the inflation has been carried Suppose as before, the nominal capital is four times the actual

investment and that the business fails The investor will be ruined

(c) The concept of consumer's surplus For definition and explanatory notes see answer to Question 10, 1914

The concept of consumer's surplus has been criticized on three grounds, all of them relating to the quantitative character of the concept

(1) The consumer's surplus derived by a community is an aggregate of the individual consumers' surpluses This aggregate is heterogeneous, for the marginal utility of money is different to different people *The calculation of consumer's surplus, therefore, rests on this very large assumption that all men are equally rich*

(2) *Our list of demand prices is highly conjectural except in the neighbourhood of the customary price* we cannot guess at all accurately what the demand prices for a commodity would be for amounts very different from amounts which are commonly sold

(3) People do not demand things singly but in groups The loss that people would suffer from being deprived of both tea and coffee would be greater than the sum of their losses from being deprived of either alone Commodities may also be joined together by complementary relations The result is that the *consumer's surplus derived from a commodity is not to be measured by considering one commodity alone*

(d) Expenditure *versus* investment as helps to industry

Man is the chief means of production of wealth Any stinting of necessaries leading to impaired efficiency is therefore, sure to result in largely diminished production *There can be no better investment than the wealth expended on necessaries* and such expenditure is, therefore, a much greater help to industry than investment

Expenditure on comforts also increases industrial efficiency and promotes production As a rule, this is to be preferred to investment

The same cannot be said of expenditure on luxuries Expenditures on luxuries do not increase, and even may sometimes decrease, the industrial efficiency of the person who

spends the wealth Thus there is ground for supposing that luxurious expenditures diminish production

The "make work" argument is no argument at all There is reason to think that wealth allowed to accumulate as a deposit in a bank would "make work" for quite as many people as when used for expenditure Banks do not keep their funds in their vaults but lend them out at interest to business men who employ them in connection with businesses

On the whole, there is a loss from *expenditure on luxuries* The industrial efficiency of the luxurious man is impaired, so far as others are concerned it is a matter of indifference to them whether they are employed by him or by men who carry on business with funds borrowed from him

4 Critically estimate the more important of the theories of value

See answers to Question 3, 1914 and Question 1, 1914.

5 Write explanatory notes on—(*a*) The Central Bank system, (*b*) the economic effects of changes in the value of money

(*a*) Under the Central Bank system a Central Bank—

(*1*) has a practical monopoly of note issues

(2) is the custodian of the government's funds and acts as the fiscal agent of the government

(3) holds the banking reserve of the country

A central bank may be a private institution entirely uncontrolled by government such as the Bank of England Usually, however, a central bank is managed by government-appointed officials, and in any case with a steady view to public advantage rather than private profit

(*b*) The economic effects of changes in the value of money

(*1*) *Influence of changes in prices on the rate of interest* has been discussed in answer to Question 7, 1915.

(2) *Influence of changes in prices on wages and rent.*

That wages go up more slowly than prices is one of the best attested facts in economic history It holds good of almost all

sorts of hired persons, not only manual labourers but also of clerks, salaried officials It is due mainly to the force of custom and it is strengthened by lack of bargaining power Thus if prices are rising faster than money wages, real wages are obviously declining A period of falling prices, on the other hand, is very apt to be a period of increased well-being for wage earners and salaried persons at least until there is an increase of unemployment

The element of custom is also very strong in the case of rent and people in the receipt of rent are likely to lose by rising prices and gain by falling prices

(3) *Influence of changes in prices on profits*

Rising prices stimulate business by increasing profits This happens because the expenses of production, especially wages, do not rise as rapidly as prices do Thus rising prices increase profits and bring prosperity to entrepreneurs, they lose in periods of falling prices for on them falls the first effect of any change

(4) *Influence on society as a whole*—On society as a whole rising prices have a wholesome effect Business men are encouraged to try new methods of production to develop new natural resources and to undertake production on a large scale Industrial progress is thus stimulated

6 What is meant by saying that wages tend to equal the marginal product of labour? Can you explain interest and profits in a similar way? Does such an explanation afford any complete ethical justification of the present economic order?

Marginal product is the product which is due to the marginal worker, *i e*, it is the amount by which the total output is increased by the addition of one worker, or, which amounts to the same thing, it is the amount by which the total output is decreased by the withdrawal of one worker Wages tend to equal the marginal product of labour The competition for workers, if wages should be found to be below that point, would force wages up But if they should be found to be above that point, the unwillingness of entrepreneurs to hire workers would bring wages down

Interest and profits can also be explained in the same way Interest equals the marginal product of captial, and profit equals the marginal product of entrepreneurs

An economic law does not prescribe a course of conduct The *marginal productivity theory of distribution furnishes an explanation of the four categories of earnings—(1) wages, (2) interest, (3) profit, (4) rent it is not a justification of the present economic order and of the existing distribution of incomes and wealth* The one is an economic problem, the other is an ethical one

An economic claim may sometimes be very different from an ethical claim An employer who squanders his earnings on immoral purposes will not be considered to have an ethical claim, but he may be a good employer and earned his profits To make the existing economic order accord more with ethical deserts we should modify some of the existing institutions such as the right of private property, inheritance, contract, facilities for education, etc And then the law of marginal productivity will read very different results.

7 Consider the various principles of attaining justice in taxation How far is progression in taxation possible and how would you justify it?

For the *Financial principle of taxation* see answer to Q 10, 1915 and for the *Equal sacrifice theory of taxation* see answer to Q 7, 1914

There are some other principles of equity in taxation

(1) *Benefit theory of taxation* It is argued that the protection enjoyed by the subject affords a measure of the duty to contribute But this involves the grossest practical absurdities Those who derive the greatest benefit from the protection of the state are the poor and the weak, women and children and the aged, the infirm, the indigent and the ignorant And certainly justice is not served by taxing most heavily the socially weak and helpless who get the greatest protection from the state

(2) *Faculty theory of taxation* The theory has been put forward that faculty, the power of production, constitutes the only theoretically just basis of taxation In other words, men are bound to serve the state in the degree in which they have ability to serve themselves

To a large extent the faculty principle and the equal sacrifice principle lead to similar results in practice—the poor and the helpless should not be taxed at all or only lightly taxed and the revenue should be raised mainly by taxing the rich and the powerful Both principles appeal to our ideas of justice

The ability theory of taxation is generally identified with the faculty theory and the same remarks apply to it

Unflinching application of either the equal sacrifice theory or the faculty theory would lead to very high progression in practice Quite conceivably, the just burden of taxation, according to either of these principles, that should fall on a man earning Rs 50,000 annually may be Rs 20,000 if the man earning no more than Rs 200 annually is made to pay Rs 5 in taxes But in no country in the world has such high progression in taxation been attempted The reason is that in spite of the spread of democratic ideas, the government in every country is controlled by the influential few who, of course, compass the prevention of an unflinching application of progression in taxation. But there is no economic reason why this should not be done.

The arguments for progression in taxation are given in answer to Q 9, 1914

8 Consider some of the more important plans to secure the settlement of differences between capital and labour

The methods of industrial peace are—

(1) *Voluntary arbitration*

In many trades there are *joint wages boards* containing representatives of employers and employed These meet periodically or when need arises for the purpose of discussing proposals for altering wages or the conditions of labour When there is a joint board it is understood that there shall be no strike or lock-out before the matter in dispute has been laid before the board

But all trades have not got joint boards ; and most modern governments arrange for *general conciliation boards* and *mediation* by persons of influence The interested parties are induced to debate points in a spirit of patience and they are kept negotiating until they hit upon a working agreement

(2) *Compulsory arbitration.*

This means the prohibition of strikes and lock outs and compulsory resort to the decision of a judge or arbitrator *Compulsory arbitration thus comes to mean the regulation by the state of the rate of wages* There is a danger that wages might for long periods be thrown out of relation to the relative demands for different kinds of labour and responsiveness of the productive system to changes in consumer's demand might be impaired

(3) Profit-sharing, the sliding scale and other methods of linking the employee to the employer

These methods do not aim at providing a remedy for industrial disputes but at anticipating and preventing them

The objection to all of them is the same, *viz* that they are unbusiness-like and smack of philanthropy

In the case of profit-sharing the employees create the fund from which their bonus is paid, by increased care, zeal and efficiency Therefore the employee should get it as a matter of right by way of an increase in wages and not as a favour from the employer Further in that case his premium cannot be lost by unwise management or dishonesty of the employer or by reason of his death, discharge or change of employment

The main objection to the sliding scale is that in spite of its apparent justice it is false in principle , because it leaves out of account the conditions affecting the supply of labour and links wages to profits which are determined by quite other considerations

9 Consider generally the proper sphere of state action in regard to a country's industrial life

State activities in regard to the industrial life of a community may be classified under three heads—

(1) Those which have reference to the *control* of business

(2) Those which have reference to the *encouragement* of business

(3) Those which have reference to the *actual undertaking* of business by the state itself

(1) If social monopolies are suffered to exist the state must control them so that the work may be done well and not

charged for exorbitantly For instance the state must control businesses providing gas, electricity or urban transportation There are also other classes of business which should be controlled bythe state

(2) The state encourages business by (a) guaranteeing a minimum of profit to certain businesses, (b) by giving bounties on exports, (c) by placing restraints on foreign trade by the imposition of import duties In other words, the state may adopt protection with a view to the encouragement of business

The aim kept in view is an expansion of national industries generally and particularly of those which are of special importance from the economic or political standpoint

(3) There are some industries which are by their nature peculiarly fitted to be undertaken by the state For instance, there are many economic services which in private hands would never yield a revenue but, which, nevertheless, it would pay a community to furnish itself with because of the great gain in consumers' surplus, e g portions of many railway systems and bridges Again the state in every country has been obliged to undertake the minting of coins because of the supreme importance of the purity of the supply Another class of state industry is gun and munition factory and dockyards The state may also undertake business from doubts of the adequacy of private forethought, e g in the case of afforestation

10 Discuss the effect upon agricultural rents (a) of agricultural improvements (b) of improvements in internal means of communication (c) of opening up of a new source of supply of agricultural products

(a) Agricultural improvements enable more produce to be raised from the same land by the application of the same amount of capital and labour Thus they dispense with the necessity of cultivating land on the margin of cultivation and they also raise the intensive margin of cultivation, less capital and labour being sufficient to raise the same produce In general, the margin of cultivation is raised by agricultural improvements and rents fall

(b) The advantages of situation are as important as the advantages of fertility in the determination of rent. Improvements in internal means of communication add to the situational advantages of certain lands and bring about an increase in their rent

(c) The opening up of a new foreign source of supply of agricultural products raises the margin of cultivation in the home country and rents fall An illustration is afforded by the fall of English agricultural rents caused by the large imports of American wheat.

1914

Answer any six

1 "When we grant to any branch of human knowledge the name of a science, our object is not the simple bestowal of an honorary title, we mean that the facts with which it deals are connected by certain necessary relations which have been discovered and which are called laws" State whether you consider that Economics can be called a science according to the above definition, and give reasons for your answer

Yes, *Economics is a science* according to the definition quoted *Economics deals with generalisations which are truly laws*

Rightly interpreted, *a natural law* expresses nothing more than certain relations which arise *spontaneously* between things men, relations which can only be spoken of as necessary *if certain previous conditions have been fulfilled* A law merely states that given a certain fact a certain result will follow or accompany it Atoms of oxygen and hydrogen are not forced to form water, but *if* an atom of the former element and two of the latter are brought into contact under certain conditions or of temperature, pressure, etc, water will result And in this view of law there are laws in economics as much as laws in the physical sciences To give an illustration, *if* the quantity of money increases and *if* no other change happens prices will, as a matter of fact, rise and men will buy and sell at higher prices though no one will compel them to do so

Free-will is not synonymous with capriciousness If free will is a characteristic of man it is no less true that rationality is another This consists in saying that man shapes his conduct in obedience to certain motives, he does not make up his mind capriciously. Thus *uniformity in reason implies some uniformity*

in human affairs And in fact we find this to be the case. All monopolists are guided by the same motives in fixing the prices of their products and the economic law of monopoly price merely states this tendency

When we lay down a law of social action where volition has play we do not allege that every man must behave in a certain way, but that in the aggregate men will actually behave in a certain way *Uniformity in the aggregate only is affirmed The economist is not a fortune teller* He does not pretend to foretell the acts and doings of an individual What matters to him is the conduct of men, considered as a whole Averages are all that are necessary to establish economic laws

Nor is this true of only Economic laws Modern research has proved that many physical laws *e g* Boyle's law, admit of exceptions

It is to be noted that there is no fundamental distinction between natural laws and social laws Only the latter are less invariable and of less wide applicability than the former

2 State the law of demand Upon what experience is it based ? Show how demand may be represented diagrammatically Explain the elasticity of demand and show how it may be measured

The law of demand states that the amount demanded increases with a fall in price and diminishes with a rise in price In other words, demand varies inversely with changes in the price

The law of demand is based upon the experience of the satiability of wants With every increase in the amount of a thing which a man has, the eagerness of his desire to obtain more diminishes In other words, the more of a thing a man has the less he will pay for any additional unit of it This amounts to saying that the amount demanded increases with a fall in price And of course the converse proposition that the amount decreases with a rise in price must be true

For a diagrammatic representation of demand see Marshall's Economics of Industry, p 65, Fig (1)

Elasticity of demand is explained in the answer to Question 3, 1915

The elasticity of demand is measured by the ratio of the percentage increase in amount demanded to the percentage fall in price, *i e*

$$\text{Elasticity of demand} = \frac{\%\ \text{increase in demand}}{\%\ \text{fall in price}}$$

Thus if demand increases by two or half per cent and there is a fall of one per cent in price, the elasticity of demand is two or half respectively

3 "Value is determined by cost of production" "Value is determined by marginal utility" Discuss carefully the validity of these statements

The first proposition has been discussed in answer to Question 1, 1915

The statement "value is determined by marginal utility" means that value is measured by marginal utility so that if to any individual utility of a commodity is twice that of another then the value of the former to him will be twice that of the latter

The statement has been criticized as follows—

(1) *The relation between marginal utility and value is not one of cause and effect but one of mutual causation* It would be as accurate to say that "value determines marginal utility" as the original statement that "value is determined by marginal utility" For the extent to which our wants are satisfied depends very largely upon the difficulty or expense of acquiring the things that satisfy them, in a sense thus value determines marginal utility

(2) The theory implies that the things balanced against one another in a market are utilities, but they are indirect measures of utility The price which the various purchasers in a market will pay for a thing is determined not solely by its final degrees of utility to them, but by these in conjunction with the amounts of purchasing power severally at their disposal The exchange value of a thing is the same all over a market, but the final degrees of utility to which it corresponds are not the same at any two parts. *In order that the theory may apply to exchange*

value it is necessary to substitute "marginal demand price" for marginal utility

(3) The theory does not give us an insight into normal value It suffices when we look only to the short period phenomena of value A complete theory of value must take account of the forces of supply

4 Explain the special theory of value applicable to commodities subject to (*a*) composite demand (*b*) joint supply (*c*) monopoly

(*a*) *Composite demand*—There is said to be composite demand for a commodity when the one and the same commodity is put to various uses Of course, these various uses are rivals or competitors with one another and the corresponding derived demands are rival or competitive demands relatively one to another But in relation to the supply of the product they co-operate with one another, being compounded into the total demand that carries off the supply

Gold is demanded both for coinage and in the arts, there is a composite demand for it (gold) If the demand for gold for the first use increases, gold will be diverted from the arts and put to that use The value of gold increases, but the fact that there was a rival use of gold prevented as great a rise as must have occurred if no alternative supply had been available

(*b*) *Joint supply*—Things (e.g rice and straw, gas and coke) are said to be in joint supply which cannot easily be produced separately

The prices of the joint products must be enough to cover their joint expenses of production, e g, if the demand for gas rises, more coke will be produced, and its price must fall, so that the increased supply may be taken off the market The rise in the price of gas must be sufficient to cover this fall in the price of coke and also to cover the joint expenses of production

(*c*) *Monopoly*

The monopolist seeks to arrange his supply and price at the amounts which will give the maximum net profit (maximum net return) from his business—so that either a smaller supply with a larger profit per unit or a larger supply with a smaller profit per unit

would reduce the total of profit. In the one case the increase of profit on each unit is outweighed by the decrease of the amount on which profit is earned, in the other the increase in the amount on which profit is secured is outweighed by the decrease in the profit on each unit Thus in establishing the price of his product the monopolist will pay little attention to supplementary costs but will consider the prime cost in connection with the probable demand for his goods at various points

5 What is the object of an index number? How would you construct an index number of prices to show the changes in prices in Calcutta during the last fifteen years? To what points would you pay special attention?

Changes in the purchasing power of money are indicated by the use of index numbers Obviously the only method of finding out the variations in the value of money is comparing it with the values of other products No single commodity can be used for the purpose of the comparison, because there is none which is free from large fluctuations on account of changes in its own demand or supply The best thing under the circumstances is, therefore, to measure the variations in the prices of a number of commodities and ascertain the average change in price It is *assumed* that rather than the prices of all the commodities having changed in a certain way indicated by the average variation, an equal and opposite change has taken place in the value of the one single thing, money Of course, the value of each thing has its own peculiar causes of variation and it is found that the prices of some goods rise in very different proportions while some remain stationary and others fall Still, supposing we can strike a general average, say, *a rise of 10 per cent in the prices of commodities in general, the reasonable inference is that an equal fall has taken place in the value of money*

It is to be noted that an index number points to no single fact There is no one single change in prices There is a medley of many changes, different in direction and degree All that we can hope to secure by averaging is some concise statement of the general drift

In preparing *index numbers of the prices of commodities in different years*, four problems present themselves for solution

(1) *Choice of commodities*

(2) *Selection of a period or year as the base*

(3) *Collection of prices*, wholesale or retail, and calculation of the ratios of these prices to those of the basic period

(4) *Averaging of these price ratios*

(1) *Choice of commodities*—Commodities selected should include the principal articles of production and consumption in the community In other words they must be representative of the industrial life and the cost of living Care should be taken to avoid duplication—that there are neither too many agricultural products, nor too many mineral products, nor too many manufactured articles, nor again too many imported commodities The peculiar variation in the price of a certain class or classes of commodities must not be allowed to vitiate the average In Calcutta, the commodities selected may well be—rice, wheat, *dal*, milk, ghee, mustard oil, potato, *gur*, sugar, salt, jute, cotton, wool, leather, tobacco, country spirit, tea, coal, iron, brass

(2) *Selection of base year or period*—If the index number for the last 15 years ending in 1913 is to be prepared, the year to start with happens to be 1899 But that year was remarkable for a famine of unusual severity in India and the prices were all abnormal That year is not, therefore, suitable for a base year and the period 1890—1899 may therefore be adopted as the base this period is free from any marked economic crisis or boom It is, thus, generally desirable to select a period rather than any single year as the base

(3) *Collection of prices*—In preparing index numbers whole sale prices are the more convenient to use because they are accurately known and continuous quotations of them are available If the index numbers are required specially for the purpose of showing the change in the cost of living retail prices must be used Care need be taken that the prices quoted for succeeding years are for the same qualities of the commodities *The prices must be expressed in terms of the base prices*

(4) *Averaging* Weighted index numbers yield much the same results as index numbers obtained by simple arithmetical averages but are much more difficult of calculation It will be best, therefore, to use simplearithmetical averages

6 In estimating the relative prosperity of the workers of different classes is it sufficient to compare money wages ?

Money wages are not a true index of the prosperity of workers and this for two reasons—

(1) High money wages if accompanied by a high level of general prices is of no advantage to the worker The American worker, as a rule, gets higher money wages than the English worker But it is generally agreed that the English worker is the better off—he has more of the necessaries and comforts of life The American handles more money, but it does not fetch him in necessaries and comforts as much as the smaller sum received by the Englishman

(2) It is now generally recognized that every occupation involves other disadvantages besides the fatigue of the work required in it, and every occupation offers other advantages besides the receipt of money wages The true reward which an occupation offers to labour has to be calculated by deducting the money value of all the disadvantages from the money value of all the advantages This true reward is called the net advantages of the occupation

It will be clear from the above that the workers in a particular country may get higher net advantages, *i e* may have economic well-being in a greater degree at the same time that they get real lower wages than those obtaining in another country

To sum up, money wages signify nothing It is the real wages that really matter to the worker Further the true reward that a worker obtains is not measured only by real wages but by the net advantages of the occupation

7 Mention the chief causes which give rise to a movement of gold from one country to another By what means is the transfer of gold from country to country prevented in a large degree ?

The chief causes giving rise to a movement of gold from one country to another are—

(1) When the equation of international indebtedness is not established, where there is a disturbance of trade balance the most obvious method of remedying such a state of things is

by a transmission of bullion which will cease when that equation is attained *Gold is a peculiarly desirable commodity in international trade so that when the creditor country does not demand other commodities gold will readily be accepted in discharge of the balance of indebtedness* Moreover, a transmission of bullion under the circumstances brings about a change in the respective price-levels which ensures the maintenance of the equation

(2) *Gold-producing countries must, of course, export gold in the ordinary current of international trade* Like every other commodity, gold cannot be retained in the country in an amount more than it requires at the existing price-level without suffering a fall in its value

(3) *Banking and internal trade requirements* If a disturbance of credit occurs a large banking reserve will be necessary and an importation of specie will be likely to take place On the other hand, an improvement of the banking system will cause an export of specie, for the country can now do with a smaller metallic reserve

A permanent growth of the home trade will necessitate a large amount of reserve and lead to the importation of gold

(4) *Gold is often also imported for the purpose of hoarding* in all countries where banking has not been much developed

Methods of stopping a foreign drain of gold have reference mainly to the first of the causes enumerated The methods are two in number—(1) Sale of securities and foreign credits, (2) raising the discount rate.

The market for securities is, perhaps, the widest and most mobile of all markets Hence it happens that now a days, the balance of indebtedness is much more likely to cause a flow of securities than the flow of money from the debtor country

Even when this method fails through the disorganisation of the market for securities, there is still the device of manipulating the rate of discount By sufficiently raising the rate of interest it is possible for the debtor country to continue in debt or to pay its debt by borrowing money from some third country Creditors will continue to leave their balances in the debtor country if the latter offers a sufficiently high rate for their use, but if their need for money is urgent, other people, feeling less urgency, will be content to lend the debtor country the amount which it has to pay The raising of the rate of discount has-

also *ultimately* a beneficial effect apart from its immediate effectiveness Capital being dear, people will sell out their stock, prices will fall, and exports will increase Thus there is a tendency for the balance of indebtedness to be wiped off

8 "That an increase in the quantity of money raises prices and a diminution lowers them is the most elementary proposition in the theory of currency, and without it we should have no key to any of the others" Examine this statement with special reference to Indian conditions, and show how the theory is true only "in a simple and primitive state of things"

The bald statement of the Quantity Theory contained in the passage quoted is inapplicable to the complex modern industrial societies In India the index numbers of the total amounts of currency in circulation in 1890 and 1912 were 100 and 264, and the index numbers of the rise in prices for the corresponding years are 100 and 138 Thus here we have a direct contradiction of the Quantity Theory in the form in which it has been quoted—an increase in the quantity of currency has not been accompanied by a proportionate increase in prices

In fact, the sweeping and unqualified statement of the Quantity Theory holds good only in a primitive and simple state of society where there is no credit and yet no barter where business does not expand and where people's habits in regard to the spending of money, *viz* the rapidity of circulation of money remain unchanged In such a state of society if the quantity of money increases prices must rise, which amounts to saying that if there is more money than before each commodity will exchange for more pieces of coin, *i e* each commodity will command a higher price

In order that the Quantity Theory may apply to the complex societies of to-day account must be taken of the influence of credit and *of the rapidity of circulation of money.* The *mutual interdependence* of the factors may then be expressed by the formula—

$PT = QV + Q'V'$

Where P = price level, T = volume of business,

Q = quantity of money in circulation, V = velocity of circulation

Q' = quantity of deposits subject to cheque, V' = velocity of circulation of deposits

In India, the increase in the volume of currency has been less than the increase in the volume of business, on the other hand there has been a very large increase in the volume of deposits and in the velocities of circulation of money and of deposits. And it is the latter that are the effective causes of the rise in prices

√ 9 What do you understand by equality of taxation? Give the general arguments for and against progressive taxation

By *equality of taxation* economists mean that taxation should involve *equality of sacrifice* on the tax-payers, so that people are left in the same relative positions as before As people have very different means, *to tax so as to cause equal sacrifice to all is to tax at a progressive rate* The rich should be taxed at a much higher rate than the poor in order that taxation may affect the marginal utility of income of both equally

Argument for progressive taxation

Equality of taxation (i e justice in taxation) thus in practice *leads to progressive taxation* The argument for this is one that appeals to every just-minded man—*the wealthy should pay higher rates of taxation than the poor* What man is concerned with is not the absolute amount but the marginal utility of his income Taxation should affect the marginal utility of income of different people equally In other words, it should entail equal sacrifice on all and so taxation should be progressive

Arguments against progressive taxation

Those who oppose progressive taxation maintain that (1) the existing distribution of property and income among the different classes of the population should not be altered by progressive taxation Taxes should be proportional to income or property They believe that the existing arrangement is funda- mentally just and does not stand in need of a reform

(2) Further even admitting that some change in the distribution of property and income in a society is desirable they hold that it will be much better to effect it openly rather than adopt the insidious expedient of progressive taxation

(3) Progressive taxation evidently deals with results, not causes It is obviously better to go to the root of the matter, and to deal with the causes by equalization of opportunities through widespread facilities of education or by the control of monopoly industries

(4) Then there are difficulties of administration progressive taxation would stimulate fraud and evasion and it would interfere with the device known as "collection at the source"

10 Explain four of the following —Consumer's surplus, Quasi rent, Favourable rate of exchange, specie point, Gold-exchange standard

Consumer's surplus—The gratification which an individual gets from the purchase of a commodity generally exceeds that which he gives up in paying its price, and he thus derives from the purchase a surplus of satisfaction The excess of the price which he would be willing to pay rather than go without the thing over the price which he actually does pay is the economic measure of this surplus satisfaction

Quasi-rent—The net incomes derived from appliances already made may be called their quasi rents In short periods the supply of these appliances—land, factories and machines, business ability and manual skill—has not time to be fully adapted to the demand The particular income derived from them does not for the time being affect the supply, nor therefore, the price of the commodities produced by them It is the surplus of total receipts over prime cost and, being analogous to the rent of land, is called a quasi rent

Favourable rate of exchange—The rate of exchange is said to be favourable to a country when paying a given amount of the money metal can be purchased the right to receive elsewhere a larger amount of the same money metal or its equivalent The par of exchange between England and India is Re $1 = 1s\ 4d$ The rate of exchange is favourable to India when Re $1 = 1s\ 4\frac{1}{16}d$ Thus the favourable rate of exchange is favourable only to exporters It is also favourable in the sense that it is tending to import gold point

Specie point—A specie-point is the limit in the rate of exchange which being reached specie flows from one country to another The upper specie point is the par of exchange plus

the cost of transmitting specie, the lower specie-point is the par of exchange minus the cost of transmitting specie.

Gold-exchange standard —The gold exchange standard may be said to exist when gold does not circulate in a country to an appreciable extent, when the local currency is not necessarily redeemable in gold but when the Government makes arrangements for the provision of foreign remittance in gold at a fixed maximum rate in terms of the local currency, the reserves necessary to provide these remittances being kept to a considerable extent abroad Thus in India the internal currency consists of rupees which are not necessarily redeemable in gold, arrangements have also been made for the sale of sterling bills at a fixed maximum rate per rupee, the funds out of which they are to be cashed being kept in London

---

1915

Attempt any six

1 Explain the reasoning upon which the proposition "cost of production determines value" rests What criticisms can be made of the statement

Ans The proposition that "cost of production determines value" is associated with the name of Ricardo In particular, if a commodity A cost twice as much to produce as a second commodity B then the value of A would be double the value of B For if A did not fetch twice as much as B but fetched, say, only as much as B then no one would produce A It would be foolish to incur double the costs and get the same value in return On the other hand if A fetched, say, thrice as much as B while costing only twice as much to produce then no one would produce B It is clear, therefore, that in order that production may be maintained value must be proportional to cost of production

How far the proposition may be accepted as sound depends on the exact meaning that is attached to the expression "cost of production" Ricardo himself included in the "cost of production" wages and profits and pointed out that account must be taken of the fact whether much or little capital (including

fixed capital and circulating capital or raw materials) was employed Thus in Ricardo's analysis wages, profits, interest and the cost of raw materials constitute the "cost of production"

The doctrine that "cost of production determines value" has been criticized as follows—

(1) It is pointed out that *the relation between the cost of production and value is not one of cause and effect but one of mutual causation* It would be as accurate to say that "value determines cost of production" as the original statement that "cost of production determines value" (See Prof M Sen's Outlines of Economics)

(2) Also *utility is everywhere one of the elements of value* It is always present where value is present A theory which makes value depend only on cost of production and which neglects to take into account this important element (viz utility) in the theory of value contains only a half-truth

(3) The cost of production is only one circumstance which governs supply *Any other cause limiting supply (e g natural limitation of supply, or monopoly) is just as efficient a cause of value in an article as the necessity of labour in its production*

There are, at least, two classes of goods whose scarcity is not due to the circumstance of their cost of production, so that it is not possible to account for their value on the basis of this theory In particular, the supply of some articles is absolutely fixed and cannot be renewed, *e g* autographs, rare paintings And there is a growing class of commodities whose supply is restricted by the monopolist commonly at a point other than what would be suggested by the cost of production alone Thus the cost-of-production-theory-of-value does not furnish a complete explanation of the problem of value even from the supply side It applies only to reproducible commodities whose production is not controlled by a monopoly

(4) The cost of production influences value indirectly and the influence operates effectively only in the long period Thus *this theory altogether leaves out of account the short-period phenomena of value*

(5) *It needs to be expressly stated that the cost of production implied in the statement is the marginal cost of production* There

is in many cases a wide lack of correspondence between the cost of production of an intra marginal unit and its value

The fundamental truth contained in the statement "cost of production determines value" may be put as follows—In the case of a reproducible commodity whose production is not monopolised, its value bears a fairly close relation to the cost of producing it That is to say its value cannot be much above or below its cost of production

2 What are the general conditions under which a Handicraft System of industry will give place to a Factory System? Compare the relative advantages of the two systems

The general conditions favouring the establishment of a Factory System are—

(1) *Accumulation of capital*—A Factory System implies, more than anything else, the introduction of machines And the erection of machinery means a very large investment of capital It is, therefore, obvious that cheap and plentiful capital is a necessary condition for the establishment of a Factory System Improvements in banking, legal facilities such as the capacity to form Joint Stock Companies and Corporations and access to the loan markets of other countries—all these make for an accumulation of capital and the establishment of a Factory System

(2) *Access to large markets and the development of transportation* Production by machinery must necessarily be production on a large scale and the markets must correspondingly be enlarged It is thus seen that the development of transportation is a great help to the establishment of a factory system

From the economic standpoint *the general merit of the Handicraft system was its stability* The market was a local one and often exclusive, the work done was more often to meet orders given in advance than to supply the general market, the processes of production were traditional and changed but a little, lastly manufacturing was combined with agriculture

Large scale production and the division of labour which are the necessary results of the establishment of *the factory system make for industrial efficiency and rapid material progress* But the *defects are that its introduction has served to widen the gulf between employers and employees and to make whole districts*

dependent for their prosperity upon the condition of single trades These are defects which may be, and have in part already been, overcome The advantage in industrial efficiency is great and increasing In some respects the present system (the Factory system) is superior to the Handicraft system it has superseded, *the Factory System produces more wealth and encourages freedom of enterprise*—but it is doubted by many *whether the Factory System secures industrial and social stability and human welfare in general to the same extent as the old Handicraft System*

3 Explain the meaning to "Elasticity of demand" and show its importance in theoretical and practical problems An increase occurs in the supply of rice, gold, tea, toys and scientific books while the conditions of demand remain unchanged What will be the general effects upon the price of the respective articles ?

When demand increases or decreases readily in response to price changes, demand is said to be elastic There are commodities in the case of which a small fall in price will cause a large increase in the amount sold The demand for them is said to be elastic There are other commodities in the case of which a small fall in price will cause only a small increase in the amount sold The demand for them is said to be inelastic

The business man as well as the economist, consciously or unconsciously, make frequent use of this concept of "Elasticity of demand" The monopolist in fixing the monopoly price does not act at random but takes careful account of the elasticity of demand for the commodity he supplies If the elasticity of demand for the commodity is large he will sell a large number of units at a low price so that though the profit on each unit is small the aggregate profit will give him a maximum return If the elasticity is small, in order to obtain maximum profit he will sell at a high price a small number of units The financier also must take into consideration elasticity of demand when fixing revenue or excise duties See *infra* answer to Q 10, 1916

Rice is a necessary for existence The demand for it is inelastic in a rich country But the demand for it is elastic in a poor country like India In India with a fall in the price of rice, the demand for rice will increase as with the present

price the poor people are not able to buy sufficient rice for themselves

The demand for *gold* as money is inelastic, the demand for gold, for ornament and for industrial uses is moderately elastic The former demand is much larger than the latter so that the aggregate demand may be said to be inelastic Hence an increase in the supply of gold will cause a large fall in its price

Tea is a necessary in England and has an inelastic demand Therefore, in England, an increase in the supply of tea will cause a large fall in its price

Toys are articles of luxury costing a trifle and have an elastic demand

The demand for *scientific books* is inelastic—a man will not buy two copies of a scientific book merely because the price is lowered nor will the number of students of science increase all on a sudden because books can be had cheap

4 Explain the phrases "standard of life" and "standard of comfort" Upon what main conditions does the standard of comfort of the working classes in a community depend? How would you attempt to raise that standard in the case of India?

The *standard of life* means the standard of activities adjusted to wants Thus a rise in the standard of life implies an increase of intelligence, energy and self respect, leading to more care and judgment in expenditure

The term *standard of comfort* suggests a mere increase of artificial wants, among which perhaps the grosser wants may predominate

These are the senses in which the terms are understood by Marshall Ordinarily, by the standard of life of a class is meant the common habits of its members with reference to spending and working Most of them tend to spend and work in pretty much the same way Any two families of the same size with the same wage working at the same trade in the same locality will usually live pretty much the same lives

The elements entering into the standard of comfort of the working classes are —

(*a*) Food

(*b*) Clothing

(c) Houseroom

(d) Fuel, in western countries

There are other items such as education, medical attendance, entertainments, etc

In India, the standard of comfort of the working classes is very low Usually there is only one principal meal and even that is lacking in protein and fatty food While admitting that the climate of India dispenses with the necessity of having a large amount of rich food yet it is well-known that there is room for a great deal of improvement in the diet Similarly in India, people can do with much less elaborate and costly clothing than in the West At the same time a rise in the standard of comfort by way of provision of a more frequent change of linen would be welcome Again, though the Indian workman is by habit cleanly and sanitary there is frequently overcrowding in his house Lastly, it is needless to say that the Indian workman now scarcely spends anything on education, medical attendance, entertainments, life insurance, etc Under present conditions it is very desirable that he should realize their importance and insist on having these services

5 Explain what an economist means by a market Upon what does the existence of a highly organized market depend ? What function in particular does a 'dealer' or speculator play in such a market ?

Economists understand by the term *Market*, not only a particular market-place in which things are bought and sold but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality quickly and easily Strictly *"market" refers not to a place but to a commodity or commodities and buyers or sellers of the same who are in direct business relations with one another*

The more nearly perfect a market is the stronger is the tendency for the same price to be paid for the same thing in all parts of the market

The market for a commodity will be highly organized if the following conditions are satisfied—(1) that the commodity is in universal demand

(2) That the commodity is capable of being easily and exactly graded (3) That the commodity is portable (4) That the commodity is durable (5) That its value is considerable in proportion to its bulk

The *speculator* performs two services—

(1) *He steadies (or stabilises) prices*, of commodities presuming that he is more often right than wrong When the price is going to rise he buys up thus increasing present prices and putting a check on present consumption, and when the price rises after all he brings out his supply to supplement that in the market so that the price does not rise as much as it would have done but for his operation The result is that the price does not either fall too much or rise too much—there is a steadying effect on the price

(2) *Even more important is the service the speculator renders in assuming risks in regard to price changes which all entrepreneurs would have to share* and in making it possible for conservative producers to know just what prices they will have to pay for needed materials months before they have occasion to use them All that the entrepreneurs have to do is to contract with speculators or dealers for future delivery of commodities at prices fixed and agreed upon in the contract

6 Wages have been described as being "the discounted product of industry" Bring out the meaning of the phrase and consider whether it is a correct explanation How would you account for the comparatively low wages paid to women?

Taussig states the theory of general wages to be that *wages are determined by the discounted marginal product of labour* This statement needs elucidation

Discount implies an advance—Just because production takes time it is necessary that the remuneration of labourers should be advanced to them *But how much will be advanced?* The employers hand over to the labourers less than what the labourers eventually produce The product of labour is discounted by the employers The labourer cannot be paid as much as the product will sell for, otherwise nothing will be left for the employer and the capitalist

How much should be left for the employer and the capitalist? In other words, what is the rate of discount? Normally, Taussig

says *the rate of discount should be on the basis of the current rate of interest and of the current rate of profit for the particular class of business* Taussig, thus *assumes* the existence of a current rate of interest (=the supply price of capital) and a current rate of profit and his theory may be put in formula form thus

Wages = marginal product of labour—remuneration for capital and enterprise calculated at the current rate.

Putting into this simple form *it is not difficult to recognise that Taussig's theory is very similar to Walker's theory of labour being the residual claimant of industry*

Objections against Taussig's theory

The same objection applies to both *The essential criticism is that it is a fallacy to assume that wages are a residual share* in the sense that the others are determined independently by laws which affect them each alone, leaving *wages as a share which can be determined by no law except that of subtraction* There is no such thing as a residual share in that sense, for any change which affects one share will affect them all in one way or another The fact is that there is one comprehensive law governing the determination of wages, interest and profits and it is a mistake in analysis to suppose as Taussig does that any one of them can be determined without reference to the others, and worse still to think that it is enough to ascertain two of the quantities when the third may be obtained by a process of subtraction

Low wages of women

The *wages of women* are, as a rule, lower than those of men for the following reasons—

(1) Their lower physical strength and less general efficiency *In many sorts of work, women are less productive than men and, therefore, paid less highly*

(2) In some degree, *choice of occupations is not entirely free for women* Not only are women by their nature unfit to take up certain occupations but custom and lack of training exclude them from many others It was only under the stress of the Great War that employment as ticket examiners in railways, conductors in tramways, clerks in banks and in Government offices and in many other like capacities was thrown open to women From this circumstance we may gather how women

were and are still to a considerable extent, constrained to crowd into certain occupations with the result that their marginal product and, therefore, wages, are low

(3) Most important of all is the circumstance that, *as a rule, women have to support themselves only and often not even that* They live in their homes, and their earnings are part of the family earnings They are, so to say, "subsidized" Hence they are willing to work for wages less than would suffice to maintain a family, *i e* less than a man would accept.

7 Bring out clearly the difference between Rent and Interest Distinguish between Interest and Profit What is the probable effect upon the general rate of interest of an increase in the volume of currency ?

In one of its aspects interest resembles rent Like the latter it is a share of income assigned to material aids in production Unlike rent, however, it is not paid for the use of unproducible gifts of nature, but for products of human industry

Interest and Profit were undifferentiated formerly Business was conducted by capitalist employers, *i e*, the men who directed the business also owned the capital In those days business profits were regarded as one homogeneous return,—the return both to the capital and to the managers of capital In modern times, a division of functions between business men and investors has taken place What is paid for the use of capital is interest, what is due to the entrepreneur for his services of management and risk-taking is profit

An increase in the volume of currency makes higher prices not lower interest The rising prices stimulate business by increasing profits This happens because some of the expenses of production especially wages do not rise as rapidly as prices The stimulation of business results in an increased demand for capital and, therefore, in a rise of the rate of interest So far, therefore, *an increase in the volume of currency tends to produce a rise in the rate of interest*

There is besides another consideration which re-inforces the above conclusion So far as the increase in prices is foreseen the expected fall in the value of the principal (in terms of commodities) causes a higher rate of interest to be charged There are thus two arguments why an increase in the volume of

currency resulting in a rise of prices may be expected to produce a rise in the rate of interest

8. Explain the difficulties that beset an attempt to define Money What is meant by Fiduciary Money, Standard Money, Bank Money ? Why is a good currency system so important to the economic prosperity of a country ?

"Money" is elastic in meaning Current usage applies the term "money" sometimes in a wide, sometimes in a narrow sense

(1) *Money in its widest sense* means media of exchange including full-value specie, subsidiary coin, convertible and inconvertible paper money, bank deposits and even bills of exchange *Its error* lies in including media of exchange which are not general circulating media

(2) In its narrowest sense money means legal tender

(3) Economists generally define money as "that which passes freely from owner to owner throughout the community in final discharge of debts and full payment for commodities " *Universality of acceptance and legal tender power are thus the characteristics generally attached by economists to money*

According to this definition it is quite possible that money may signify even inconvertible paper money

Fiduciary money is convertible and redeemable paper money, issued by Government It is thus opposed to inconvertible paper money It is called fiduciary because people believe that it can be converted at will

Standard money refers to money in which the standard of value is embodied In other words, it is full valued metallic money

Bank money refers to notes issued by a bank They are payable at sight to bearer The essential characteristic of such money is that it is instantly convertible, on the demand of the holder, into standard money

A good currency system and its benefits

By a good currency system is meant one providing a stable standard of value (1) As a great portion of the business transacted is on a basis of credit, stability in the standard of value has

become all-important An unstable standard gives rise to undeserved losses and unearned gains to all sections of the people. Both are destructive of sound business enterprise and economic prosperity in the long run Inflation of currency brings a wave of rising prices and creates an industrial boom But this prosperity is short lived, on comes the crisis, many businesses are ruined and there is misery more widespread than before

(2) In international trade also a stable standard of value is a prime requisite Large fluctuations in the par of exchange discourage foreign trade Many historical instances can be given

9 Carefully consider whether labour can raise the level of normal real wages by means of combination

I *As regards a single trade*

It is a well known fact that wages are generally high in trades that have strong trade unions relatively to those that have not Theoretical considerations also support this conclusion *An artificial scarcity of labour in a trade can raise wages much if four conditions are satisfied—*

(1) That there is no easy alternative method of obtaining a supply of the commodity

(2) That the commodity is one the demand for which is inelastic

(3) That wages form only a small part of the expenses of production

(4) That the employers would accept smaller profits rather than limit the supply of their labour and capital

There are many trades in which these conditions occur partially which, therefore, afford a scope for the activity of trade unions As a rule, we may conclude that labour can raise wages by means of combination in a single trade

II *As regards industry in general*

Permanent limitation of the numbers in all trades together is impossible, unless multitudes are to be supported in idleness It is quite possible, however, to make labour scarce in all trades by shortening the hours of labour sufficiently If there is a general diminution in the work done, the national dividend will shrink

and the share of it that goes to the working classes, in other words the aggregate wages will shrink also though not perhaps quite in the same proportion And since there would be no diminution of the number among whom this aggregate was divided, wages would fall very nearly in proportion to the diminution in the work done This then is the conclusion that *an artificial scarcity of labour in all trades produced by combinations of labour would result in lower wages* The means employed to enhance wages in a single trade cannot be relied upon to enhance wages in general

But *there are other ways in which unions can really raise wages*

(*a*) The normal forces of supply and demand do not act freely on wages of labour, there is economic friction The facts that labour is perishable and that the labourer knows the market for his labour only imperfectly, put the labourer at a disadvantage Wages actually given are below the net value of the labour done By a threat of temporarily withholding altogether the supply of labour unions can force employers, and through them the community at large, to pay higher wages In this way, the *labourers can recover their due and regain by a mighty effort that of which they had been robbed by reason of their disadvantage in bargaining.*

(*b*) Mere economic reasoning alone is insufficient to give a just idea of the effect of combination of labour on wages It is remarkable that *trade unions have improved the character and increased the efficiency of workers, and in so far as they do this they are likely to raise wages permanently*

Thus the conclusion is that as regards industry in general labour by means of combination can raise wages in two ways—(1) by making economic friction side with, instead of against, the workman, (2) by improving the character and increasing the efficiency, and therefore, the marginal product and the wages of the workman

10 Upon what general principles should a Government determine its tax system ? Why are active duties generally condemned ? What are the advantages and disadvantages of an income-tax ?

S P—7—G E Q

The first question of principle in taxation has to do with the mode of apportionment *Shall the tax payer pay simply in proportion to his income or more than in proportion?*

The advocates of the *principle of proportion* propose to call upon each person to pay in proportion to his income and so to leave the relation between different incomes undisturbed In other words, the existing distribution of property and income should not be disturbed by taxation This may be described as the simply financial principle of taxation

The advocates of the *principle of progression* propose that rich persons should be called upon to pay taxes not only in proportion to their income but more than in proportion—*the rich should pay higher rates of taxation than the poor, because the rich have greater ability or faculty to pay* The argument runs that taxation affects the marginal utility of income and should affect all equally The wealthy are not entitled to lighter burdens than the poor It is fallacious to aim at leaving the relation between the absolute amounts of incomes undisturbed What should be aimed at is to keep the marginal utility of different incomes unchanged There should be equality of sacrifice so that people are left in the same relative positions after being taxed as before This form of the principle of progression is called the *equal sacrifice theory of taxation* and is commonly accepted as the ethical ideal to be kept in view

The financial principle of taxation does not appeal to modern democracies

Besides the principle of equity (justice), *other principles of taxation* deal with the *administrative aspect*

(1) The *principle of economy* declares that taxes should be chosen (a) the cost of collection of which is small in proportion to the proceeds, (b) the loss occasioned by which to the country is small in proportion to the proceeds

(2) The *principle of convenience* advises that taxes should be so selected and so arranged that tax-payers are put to the minimum of inconvenience

(3) The *principle of clearness* affirms that tax-payers must be able to discover, and without difficulty, what they have to pay, when they have to pay and why they have to pay.

(4) The *principle that an old tax is a good tax* and a new tax is a bad tax It is wise to remember that in the process of accommodation much loss and inequity in incidence may be involved

(5) There is a *need of variety* in a taxing system Every tax tends to bear inequitably on some people but when a taxing system is well designed it ought not as a whole to bear inequitably on anybody

The income-tax—*Advantages*

A *national income-tax* has many points of strength—

(a) It gains in economy and *productiveness* and wins increasing approbation as the years go by

(b) Income is as *good* and perhaps better than any other single *measure of ability*, so that income taxation seems to be peculiarly consistent with the ethical ideal that taxation should be in accordance with income

(c) It gives no trouble because of shifting

(d) Most important of all is its *admirable elasticity* In fact, it may be made to act as the regulator of the entire revenue system

The *disadvantages of the income tax* are—

(a) *Its unpopularity and inquisitorial features.*

(b) *Administrative difficulties* as regards the assessment of the income-tax In estimating net income a large number of deductions must be made from gross income, many of which are vague, *e.g* money rent of land is frequently less than the true net income because land is appreciating in value and land ownership yields a very valuable but very in-tangible income in the shape of increased respect from one's neighbour

---

1916

1 What do you understand in political economy by production ? What are the factors of production and in what manner do they co-operate ?

Production is defined by the economist as the creation of utilities Man cannot create material things When he is said to produce material things he only produces useful results or utilities All that man can do is to re arrange particles of matter so as to create form utilities, or to move goods from one part of the world to another so as to create place utilities, or to preserve goods from one period to another so as to create time utilities, or to transfer goods from the ownership of one person to that of another so as to create possession utilities. *Any activity which contributes to the creation of utilities in either of these ways is production*

The *factors of production* are the following—

(1) *land* meaning the whole of the material and the forces which nature gives freely for man's aid, in land and water, in air and light and heat

(2) *labour* is human exertion of mind or body undergone with the object of creating utilities

(3) *capital* consists of the products of past industry used as aids to further production

(4) *organization* or that special kind of labour of entrepreneurs which devotes itself to the organization and direction of industry

Land and labour are the primary factors of production, capital has been called an intermediate product of land and labour because by the application of labour to land capital can be produced organization is only a special kind of labour distinguished because the conditions governing its supply and its reward are distinct

The *laws governing the co operation of the factors of production* are—

(1) The expansion of an industry, provided there is no dearth of suitable agents in production, tends to be accompanied by *increasing returns*, other things being equal

(2) The expansion of an industry, provided that additional supplies of some agent in production which is essential cannot be obtained, is invariably accompanied, at once or eventually, by *decreasing returns*, other things being equal

2 What are the advantages of large-scale production? What are the limitations to the increase of scale in the case of agriculture and other industries?

The advantages of large-scale production are—

(1) *Economy of skill* When production is carried on a large scale the *principle of the division of labour can be applied to a very high degree* It can be contrived to keep each of the employees constantly engaged in the most difficult work of which he is capable and yet so to narrow the range of his work that he can attain the facility and excellence that come from long continued practice Further *the large manufacturer can give himself wholly to broad questions of policy* leaving all routine work of management to salaried officials

(2) *Economy of machinery* When production is on a large scale *much specialized machinery can be employed* resulting in large economy and efficiency On the other hand a small manufacturer must have many things done by hand or by imperfect machinery because he cannot find constant employment for expensive specialized machinery Further a large producer can spend much on experiments and bring about *improvements in the machinery* ordinarily used

(3) *Economy of materials* This arises from two sources—*prevention of waste* and *economy in buying and selling* *Waste is prevented by the utilization of by-products* *A large business buys in great quantities and therefore buys cheaply* It saves on carriage particularly if it has a railway siding It sells in large quantities and yet gets a good price because it offers conveniences to the customer by having a large stock from which he can select Its reputation gives him confidence, it can spend large sums on advertising and its own goods mutually advertise one another

In agriculture and allied industries there is not much room for the economies referred to above, there is no opportunity for an extensive system of division of labour, the machinery used is simple and non-specialized Production on a large scale would not mean a more thorough organization resulting in greater economy but would mean a number of separate units of business under one management and consequently less effective supervision and loss of economy

3 What is capital? What are the factors affecting the growth of wealth in a country?

Capital implies both productiveness and prospectiveness It is wealth which yields an income or aids in the production of an income or is intended to do so The use or intended use of wealth settles whether it is capital or not The distinction between capital and other wealth is fundamentally a psychological one We should speak of capital when considering things as agents of production

For an answer to the latter part of the question see answer to Q 1, 1912

4 State the Law of Diminishing Returns What is the bearing of that law on the theory of population? Illustrate from Indian conditions

For the statement of the Law of Diminishing Returns see answer to Q 3, 1911

The theory of population rests upon two fundamental assumptions—that the increase of population takes place in a geometrical progression and that the increase in the means of subsistence takes place in an arithmetical progression In other words, the theory of population assumes that the power of the population to increase is indefinitely great but that the means of subsistence can only be increased in a limited way so that there is a tendency for the population to press on the means of subsistence The reason for this limitation in the increase in the means of subsistence is found in the law of diminishing returns If production were not subject to the operation of this law and if increasing returns obtained in the cultivation of land so that the means of subsistence could be as rapidly increased as the possible increase in numbers of population then the theory of population would become a baseless hypothesis In other words, *if the Law of Diminishing Returns did not exist, the theory of population would fail being shorn of one of its fundamental assumptions* The theory of population (of Malthus) thus is based practically on the Law of Diminishing Returns—though Malthus himself might not have been conscious of this fact

As India is predominantly an old agricultural country the production of wealth is very much subject to the operation of the Law of Diminishing Returns The means of subsistence can be

increased slowly and only with much effort so that there is a constant tendency for the population to press on the means of subsistence In India social and religious customs and the lack of any idea of the standard of living and the absence of vicious practices combine to prevent the application of "preventive" checks In India we have thus the sad spectacle of a frequent application of positive checks in the shape of famine and pestilence

5 What do you understand by the value of an article? How is value determined? Explain why in some cases value is based on utility alone and give illustrations

The *value* of an article in terms of another at any time and place is the amount of that second thing which can be got there and then in exchange for the first

Utility and cost of production both play a part in governing value As a general rule, the shorter the period which we are considering, the greater must be the share of our attention which is given to the influence of demand (utility) on value, and the longer the period, the more important will be the influence of cost of production on value

The influence of changes in cost of production takes as a rule a long time to work itself out, so that if we have the short period in view we may say, in certain cases, that value is based on utility alone, *e g* the value of fish for the day in a market is governed exclusively by the demand without reference to the cost of production, the prices of non-reproducible goods such as autographs, rare paintings are also based on 'utility' alone

[See Prof M Sen's Outlines of Economics]

6. What is the meaning of Elasticity of Demand? Of what articles would you expect the demand to be inelastic? Give illustrations

For an answer to the first part of the question see answer to Q 3, 1915

The demand for the following classes of goods are inelastic—

(1) necessaries, *e g*, rice, tea in England, wheat, salt, etc

(2) luxuries for the rich, *e g*, high class wines, etc

(3) commodities sold at very low prices, *e g* matches, halfpenny newspapers, etc

7 What are the functions of money? What would be the result of an increase or decrease in the quantity of money and why?

The *functions of money* are—

(1) to serve as the *medium of exchange* dispensing with "the double coincidence" required in barter

(2) to serve as *the common denominator of values* In being used as the medium of exchange money comes to fulfil this second function because when the prices of commodities are known we can compare their respective values

(3) to serve as *the standard of deferred payments*. Goods are not always exchanged for money at the time, an equivalent is not always given on the spot Future payment is often stipulated for Money therefore is used as the standard of deferred payments

For an answer to the latter part of the question see answer to Q 8, 1914

8 What is the nature of the services performed by the Entrepreneur or Businessman and in what manner is he rewarded?

For an answer to the first part of the question see answer to Q 4, 1912

The entrepreneur is rewarded by profits The profits of a business are the excess of its receipts over the outgoings *Profits are a composite income* containing all or some of the following elements—

(1) interest on the capital invested by the entrepreneur in the business

(2) wages of management

(3) rent of personal ability

(4) remuneration for risk taking

(5) surpluses due to bargaining power or accruing from industrial changes

Elements (1), (2) and (4) can be calculated on the basis of the law of marginal productivity What remains after they have been deducted from the profits is the sum of elements (3) and (5) and their separate amounts can only be guessed

9 How do you account for different earnings of labour in different occupations and in different localities? Why is some of the most unpleasant kind of labour paid extremely low wages?

In comparing wages in different occupations we are apt to look to the time earnings But it is to be noted that competition tends to make not the "time-earnings" but the "efficiency earnings" in different occupations equal, other things being equal In other words, apart from other considerations, wages in different occupations are proportional to the severity of the task imposed on the worker, *i e* proportional to the exertion of ability and efficiency required of him

I Thus *so far as occupations differ in the efficiency they demand of the worker they will offer different wages*

II *Other causes making for differences in wages are—*

(1) Trade expenses

(2) Uncertainty of success

(3) Irregularity of employment

(4) Supplementary earnings

(5) Healthiness and cleanliness or otherwise of the occupation

(6) Social position attaching to the occupation

(7) Incidental advantages offered such as lodging, food, etc.

It has been very well remarked that so far as the earnings of different occupations differ because of the presence or absence of one or more of these causes they correspond more nearly to the Net Advantages offered by these occupations They have therefore been called "equalizing differences"

III Finally it is to be noted that the *absence of mobility or imperfect mobility of labour produce difference in wages in different occupations*, other things being equal. The high earnings in the professions are not so much due to any very high efficiency demanded in them but to the fact that there are many difficulties, social and economic, in the way of members of the lower classes getting admitted to them Again in trades having unions which discourage new recruits wages are relatively high

Differences of wages in different localities are similarly explained The agricultural labourers of Eastern Bengal are, as a rule, more hard working than those of Western Bengal and therefore command higher wages The wages of coolies in tea gardens in Assam are relatively high because of the unhealthiness of the climate The wages earned by Indians in Burma are much higher than those earned by the corresponding classes in India and this difference is mainly due to the little mobility of labour between India and Burma

It is a fact that *some of the most unpleasant kind of labour is paid extremely low wages, e g the wages of mehtars* In theory, we should expect just the reverse arguing that unpleasant work will require to be paid wages higher than those paid for ordinary work of the same degree of difficulty This phenomenon has accordingly been called "*an evil paradox*" This strange result arises from the fact that there are actually very many persons who can do such work and do no other so that wages are kept down These are persons who are prevented by obstacles of environment such as social custom in India or by lack of training or by deficiency of inborn qualities from equipping themselves for any other work

10 Consider fully the direct and indirect economic effects of a duty on import of motor cars in India

To start with, let us discuss the important conditions governing the solution of the problem The elasticity of demand for motor cars in India is high The huge increase in sales in the last few years undoubtedly indicates a growth of demand, but this also shows elasticity of demand for a substantial portion of them would have been made even in the absence of the growth of demand under the inducement of a lowering of prices Further it has been a well-marked fact that the elasticity of demand for high-grade cars is slight because they are bought only by the rich as a luxury but the elasticity of demand for cheap cars is high because they are, as a rule, used by business and professional men who have horse conveyances to fall back upon

Coming to the side of supply we note that there are many competing makers of high grade cars and that the profits of manufacturers are not probably extravagant But in cheap cars,

Ford cars hold a predominant position and the makers earn fabulous profits

If an *advalorem duty* were levied on motor cars, from what has been said before it is clear that

(1) *in the case of high-grade cars* the prices will rise but by an amount less than the amount of the duty *The rich buyers having an inelastic demand will thus bear most of the burden* and only a small part will fall on the manufacturers

(2) *in the case of cheap cars* the prices will rise only slightly *Two reasons will prevail with the manufacturers to take the burden on their own shoulders* (a) as the elasticity of demand is high a considerable rise in price will cause sales to fall off largely, (b) the production of cheap cars is strongly subject to increasing returns, the parts being all machine made A decrease in sales and therefore a decrease in the numbers to be produced will at once put up costs No relief is possible by selling in other markets as the elasticity of demand is everywhere great and larger sales will mean lower prices

An *ad valorem* tax on motor-cars is therefore desirable because it will only touch the pockets of the rich and bring in a good revenue part of which will be paid by the foreigner

---

1917

Answer any seven

1 What is the subject-matter of Economics ? Explain in what way it is a social science, and bring out in your answer its relation to other social sciences

"Economics is," in the words of Marshall "a study of mankind in the ordinary business of life" The words to note are *mankind* and *business* the former brings out the fact that it is a social science, the latter fixes its character Otherwise expressed, "Economics is a study of wealth and a part of the study of man," more explicitly, Economics treats of all *the actions of human beings in relation to wealth*, particularly in the making, exchanging, sharing and using of wealth Thus inquiries like "What are the factors leading to localization of industry ?" "How is the value of an article determined ?" "What are the

effects of price changes?" "How are wages determined?" "What is a luxury?" are all economic problems

Economics is a social science and not a moral or psychological nor a physical science A moral or psychological science relates to *man in his purely individual capacity* On the other hand *social sciences are concerned with him principally as a member of a society* Now in Economics the standpoint is the latter and not the former For instance take the problem of wages Chapman, fortunately, gives a summary of the influences affecting wages which includes efficiency of labour, appropriate placing of labour, ability of employers, opportunity of becoming organizers, inventions, growth of capital Now if we looked to the labourer in his purely individual capacity we should neglect all the elements except the first All the others come in only when we consider him as a member of a certain society It is, therefore, quite clear that Economics is a social and not a moral or psychological science.

Of course, both social and moral sciences relate to voluntary human action and this fact is the common point of contrast to the physical sciences. When the production of wealth is said to be one of the great departments of economic science reference is not made to the technical processes. They are taken for granted as premises the economic conclusions are concerned with the various influences exerted on production by division of labour, methods of distribution and so forth

There are two social sciences which are intimately connected with our subject, viz Politics and Jurisprudence The inter relation of Economics and Politics is specially prominent when Economics is regarded in its practical aspect, *e g* Poor Law and Factory Legislation come under discussion in both The socialists have done well by insisting on how certain legal facts, *e g* private property, inheritance are at the root of several of the most significant laws of distribution

2 What are the factors leading to localization of industry? What are the advantages of such localization? In what industries is localization impossible, and why?

For answers to the first two parts of the question see answer to Q 3, 1912

Localization is impossible in agricultural industries Cultivation must be spread over the broad land owing to the operation of the law of diminishing returns Generally it may be said that all *extractive* industries, *e g* mining, fishing, etc , are incapable of being localized

3 What do we understand by a market in Economics ? What are the limitations with regard to time and space to which markets are subject ?

For an answer to the first part of the question see answer to Q 5, 1915

The principal limitation with regard to time arises from a consideration of durability , with regard to space, of portability Other things being equal, the more durable a commodity, the longer will its market extend in time , the more portable a commodity, the wider will its market extend in space Characteristic illustrations are, of the first—houses, rail-roads, canals , of the second—fruits, food grains, cloth Besides these other considerations have sometimes to be given weight, *e g* an old-fashioned though still serviceable conveyance may lose its market

4 How is the value of an article determined when the production of it is in the hands of an individual or a single corporation ? Under what circumstances can monopoly be an advantage to a community ?

When production is in the hands of an individual or a single corporation clearly there is a want of competition and, therefore, the ordinary law of value which presupposes competition among sellers does not hold *Value, under monopoly, is fixed by the monopolist at a point so that his profit (the excess of sale proceeds over total outlay) is a maximum* In other words, *the aim of the monopolist is to maximise his return*, i e , *to make his profit the greatest possible The conditions of demand are given and they are beyond his control* Therefore, he secures his object by either limiting the amount supplied or the price but he cannot fix both In order that he may fix both he must have a control over demand which he has not

It is possible that there may be more than one point of monopoly profit and consequently more than one monopoly value Again to take the fullest advantage of the given conditions it may be necessary to *discriminate* between different

classes of consumers, fixing a price for each so that the profit is larger than what was possible without discrimination In actual practice, monopolists have almost always to adopt this device of discrimination Discrimination sometimes leads to dumping

Certain types of monopoly are inevitable and, under proper safeguards, they may be made beneficial to the community, e.g. municipal water or light supply, postal system, the so called public or social monopolies as a class Generally industries operated under increasing returns or having exclusive sources of supply tend to be monopolies It is in their *nature* to become monopolies (hence the name *natural* monopolies) Sound policy requires that every care be taken that they do not develop the evil features of monopolies such as corruption, blackmail, etc Further by heavy taxation of their profits which, it is well known they cannot shift on to others they may be made to yield a very considerable revenue to the public exchequer The fact is that in such cases competition is not only wasteful but unstable And we must make the most of a monopoly

The advantage of a monopoly is, perhaps, most evident in the case of the legal monopolies such as patents, copyrights, trade-marks Our first impression is that they are of benefit to the individuals concerned alone On this point, at any rate, the interests of the individuals also promote the interests of the community to which they belong in the long run The encouragement thereby given to invention, ingenuity or literary merit brings out the best elements in the community

5 What do you understand by normal value? Of the *factors* affecting the demand and the supply of a commodity, which are more important with regard to normal value, and why?

The term normal value is elastic in meaning There are at least three well defined senses according as it refers to (1) the short period, (2) the long period, (3) the very long period when it is called secular value

The word normal refers to absence of change Value which is normal with reference to one set of conditions is not normal with reference to a different set of conditions To prevent

confusion it has been proposed to restrict the use of the term to the second sense above In the first sense the term specially used is sub-normal value As has already been mentioned there is a special term for the third sense, *viz*, secular value

It is a well known economic law that in the short period the influence of demand is predominant, in the long period that of supply For the influence of changes in supply as a rule takes a longer period to work itself out than the influence of changes in demand

In answering the second part of the question we must take the term normal value in its restricted sense in reference to the long period *Evidently in looking for the more important factors governing normal value in this sense we should give the chief attention to the supply side* Now in the most common case of a reproducible commodity under competition by far the most important factor affecting supply is marginal cost of production

6 What is Gresham's law? How does it work, and in what cases is it applicable

See answer to Q 8, 1909

7 What are the principal considerations which are put forward by protectionists in support of their doctrine

See answers to Q 13, 1909, and Q 6, 1911

8 Explain the following —

"The rate of wages is determined by the marginal productivity of labour"

The "marginal productivity of labour" means the net product (*i e*, the net addition to the value of the total product) caused by the employment of the additional unit of labour; *net*, that is after deducting for any extra expenses that may be indirectly caused by the change and adding for any incidental savings It may be added that in most cases the net product is an improvement in quality or a general contribution to the value of the product, it is not a definite part of the produce

Assuming effective competition between employers and complete mobility of labour it follows as a matter of course that the rate of wages *is equal to* the marginal productivity of labour In a sense the one may be said to be *determined* by the other,

but only in a partial sense For the problem of wages is in reality complex and the marginal productivity theory gives only the demand side

9 What is a luxury ? Under what circumstances is luxury justified ?

A luxury has been defined as the gratification of a superfluous want, superfluous from the point of view of production, that is to say, not contributing to productive efficiency Pursuing this view to its logical conclusion harmless luxuries are those which neither add to, nor detract from, a person's efficiency and harmful luxuries are those which detract from a person's productive efficiency

It must never be lost sight of, however, that production is a means and not an end An acquisition of wealth may sometimes be made at the cost of welfare in the highest sense A busy lawyer might choose to gratify literary tastes which could earn him nothing Even his professional income might suffer in consequence but he would be leading a fuller and worthier life

It may be further pointed out that *luxury is a relative term* Warm clothing is a necessary of efficiency in the cold countries of the West It is an article of luxury in Bengal Again a motor-car is a necessary of efficiency to a surgeon , it is nothing but a luxury to a Zemindar

It is not sufficiently realized, moreover, that many a want in its origin appeared as a superfluity and a luxury Watches, bicycles, telephones, etc , were, when first introduced, looked upon as luxuries so also in Bengal shirts, coats and shoes were regarded as foreign innovations not many decades ago Therefore, if all luxuries were always excluded there would be no progress to record

On the other hand it must be said that the popular censure of luxurious expenditure is generally well-grounded Unfortunately most of it never leads to any refinement, mere vanity being at the root of it Accordingly Gide has formulated the rule that *luxury is unjustifiable when there is a disproportion between the amount of social labour consumed and the degree of individual satisfaction obtained*

10 Discuss the nature of profits Are profits "legalized robbery" ? What is the economic justification of profits ?

Various views have been held as to the nature of profits (1) According to Walker profits partake of the character of rent being really the *rent of ability*, and, therefore, they do not enter into price (2) According to a second view profits are a form of wages and accurately designated by the phrase *wages or earnings of management* (3) According to a third body of opinion it is unsound theory to make a separation between the part of the income of the entrepreneur which he gets as interest on capital invested by him in his business and the part which he gets as his earnings of management So that profits include both interest and earnings of management To express this wide sense Marshall has given currency to the phrase *gross earnings of management*, net earnings of management excluding the element of interest (4) Another view suggests that just as there is a definite principle at the basis of the other three shares in distribution so there ought to be something in the case of profit and this they discover *in the function of risk-taking* The word *profit* ought to be confined to mean only the income which *is the remuneration for risk-taking* (5) Then there is the *residual claimant theory* It is really no theory at all or at the best a very bad apology for one, a counsel of despair, because it amounts to confessing that there is no principle according to which profits may be ascertained and therefore, we are reduced to finding out what is left to the entrepreneur after he has met his expenses

Each of the above views emphasizes one element of truth, for in reality profits are a composite income and no simple explanation is wholly correct All except the last view avowedly justify profits Walker specially writing with an eye to the socialists and pleading that entrepreneurs get their income without causing any burden on the consumers The fifth or last view lays itself open to attack at the hands of the socialists Well they may argue why should of all people the entrepreneurs be made the residual claimants of industry? Why should the surplus go to their pocket?

The socialistic view that profits are the result of "legalized robbery" is far too sweeping an indictment of the present industrial organization It may be said at once that no inconsiderable part of profit has an evil origin and is the result of gambling, of the exploitation of labourers and of the swindling

of the public Nevertheless *there is much of profit that is the reward of hard, well thought-out work and intelligent anticipation of events* Such profit is perfectly as fair and worthy as wages or any other form of income

---

1918

1 Discuss the relation of production and consumption, bringing out clearly how the ultimate control of production lies in the hands of the consumers

(i) Wants give rise to activities, *consumption necessitates production* As the saying is, man must earn his bread by the sweat of his brow At any rate, this is true of the primary wants of man, wants in regard to food, clothing, house-room (and fuel in western countries) Productive activity is called forth to supply a felt need In this view the statement that consumption is the goal of production and the starting-point of all economic activity may be defended

(ii) On the other hand it has been pointed out that at the present day in the West a rapidly lessening part of consumption is of the character mentioned above Much of our modern demand may be said to be the result of productive activity, *e g* demand for gramophones, bioscopes, etc *In such cases production creates demand* and the relation of production and consumption seems to be reversed

The relation between production and consumption is better described as one of mutual interdependence than one of cause and effect either way In reality the economic processes are one organic indivisible whole Though it is usual to study them under different heads as production, consumption, etc, it must not be supposed that the phenomena themselves are capable of like differentiation We study the same phenomena in every division of the subject but from a different point of view

The ultimate control of production lies in the hands of consumers *Consumers' demand governs retail traders' demand and retail traders' demand governs wholesale traders' demand which sets the movements of industry* There is much flaw in these intermediate adjustments but ultimately it is effective

It may be added that the statement that "the ultimate control of production lies in the hands of consumers" is no more than a loose way of expressing the truth In the control of production the conditions of supply have to be given weight equally with conditions of demand To say that the latter are of sole importance is to make an one sided statement which is apt to mislead The idea is more accurately expressed by saying that the resources of producers come from the national dividend

2 "The standard of living of workmen determines their efficiency The standard can be maintained at a high level by restricting the size of the family" Explain this doctrine, and mention any exceptional circumstances of which you can think, in which it will not hold

Malthusian enthusiasts solve the problem of poverty in very simple fashion They argue that by restricting the size of the family any rapid rise of population may be prevented Thus the standard of living will be maintained at a high level Further they believe in what may be called a mechanical view of the efficiency of labour The more food you give to the workman the more work you get out of him Generally, by raising the standard of living the efficiency of workmen may be increased and cousequently wages

There are a couple of loop-holes in this optimistic doctrine In a dull and unambitious community a declining population may not stand for any elevation of the standard of living The maintenance of the standard at a high level depends no less on the constant watchfulness and the combative spirit of the population than on their numbers Again it is undoubted that a high standard of living is a *condition* of the existence of efficiency But it is not always true that a high standard *determines* efficiency Else the path to the attainment of efficiency would be a very pleasurable one

3 Discuss the effect of the rate of interest on the growth of capital in a country

The rate of interest may be said to be the supply price of savings and an increase in this rate will ordinarily produce an increase in the amount of capital saved A striking illustration is afforded by the war loans The tempting rates of interest

have undoubtedly drawn much wealth which might otherwise have been spent on present consumption.

On the other hand in a small circle of cases an increase in rate of interest has just the opposite effect, *viz*, to diminish the amount of savings For instance people looking forward to getting a definite annuity will need to save less when the rate of interest is higher

4 How is the value of an article determined? What is meant by marginal utility?

See answers to Q 9, 1909, to Q 3, 1914, to Q 1, 1915, to Q 5, 1916.

5 Parents have a heavy responsibility regarding the choice of occupation by their sons What evils would result if the parents were led away by mere sentiment or prejudice and did not enquire properly into the prospects?

It is an unfortunate social fact that a great many parents are led away by mere sentiment or prejudice in the choice of occupations by their sons And the evils that result are not a matter for academic discussion but are very real practical problems A common sentiment prevailing with parents is to see their sons following in their own foot-steps And they have an equally strong prejudice against occupations to which they are strangers For instance, a handloom weaver in India despite the dreary prospect before him would, out of sentiment, do his best to train his son in his own industry Again though he may be convinced that the wages of a skilled operative are much larger than his own income, prejudice will decide him against allowing his son to give up the unremunerative for the remunerative occupation There is a great deal of inertia in the adjustment of the population to industrial prospects The comparatively old occupations are overcrowded, the comparatively new occupations do not contain their full quota Hence the law has been laid down that the supply of labour in a trade in any one generation tends to conform to its earnings not in that but in the preceding generation

6 Consider the social and economic effects of variations in the purchasing power of money

See answer to Q 5 (b), 1913

7. Consider the different economic uses to which land is put in order of their intensity

"People that live by hunting must have several square leagues per man, pastoral races need several square miles, agricultural nations require only a few acres The limit falls as we pass from extensive to intensive methods of farming In China, where farms are as small as our garden plots, the prevailing methods of cultivation enable several persons to subsist on the produce of an acre"

Again the use of land for purposes of residence sites or industry is generally more intensive than in agriculture Per acre of land there is much more capital and labour invested in building land than in agricultural land Land finds its most intensive use in commercial sites and we all know the fabulous prices which they fetch

8. Why are the wages of women low, compared with the wages of men, for the same kind of work or for work requiring the same exertion?

See the second half of the answer to question 6, 1915

9 "The national dividend is a continuous stream from which all the factors of production are rewarded" Examine this statement, and mention in particular how the owners of land are rewarded

The national dividend (i e, *the national income*) *is at once the net product of and the sole source of payment for all the agents of production including land, labour, capital and organization The national dividend is accurately described as a flow or a stream rather than a fund or a stock Every moment something is being added to it and every moment something is being paid out of it* As all the factors of production contribute to the national dividend it is wholly exhausted in remunerating them

Rent is, like the other shares in distribution, paid out of the national dividend Other things being equal, the larger the national dividend (*i e*, the more prosperous the community) the larger will be the amount of rent (This is the unearned increment of land) Every increase in the numbers or improvement in the quality of the other factors adds to the common source of income, *viz*, the national dividend, and benefits the landlord,

other things being equal He may lose if that other factor stands in a competitive relation with that owned by himself, e g, improvement in transport methods considerably reduced agricultural rents in England On the other hand he may gain, even when there is no increase of the national dividend, if there takes place an increase in the demand for this particular factor on the part of the other factors

10 Criticize the following doctrine "When giving charity, the rich are only giving back in part what they have stolen from the poor and for this they deserve no credit"

The extreme socialist view holds that property is theft, the result of the deception practised by capitalists and employers upon the unorganized and ignorant masses of working men The rent that the landlords get, the interest that the capitalists get, the profit that the employers get,—they are all derived by robbing the labouring classes This is the socialist theory of value So the wealth of the rich is all due to robbery and when the rich make gifts to the poor, they are only restoring in part what they have stolen from the poor It is argued that land originally belonged to the community and the establishment of private property in land was the work of violence and exploitation So interest is a historical category, capitalism is a noxious growth, the sooner eradicated the better Lastly, the entrepreneur renders no such service to society as to entitle him to receive the substantial income which he enjoys under the name of profit Really profit is a surplus obtained by tricking labour of its rightful due Wages are the only form of income free from any taint and it was originally thought to be the sole form of income All others are, directly or indirectly, the result of improper appropriation Therefore, "when the rich practise charity they are giving back in part what they have stolen from the poor"

But the doctrine is wrong because the socialist theory of value (on which the doctrine is based) is wrong (See Prof M Sen's Outlines of Economics—The socialist theory of value)

SEN PRESS,
CORNWALLIS BUILDINGS,
CALCUTTA

GENERAL ECONOMICS

UNIVERSITY QUESTIONS WITH FULL ANSWERS

(1919—1925)

BY

A GOLD-MEDALIST.

Sen, Ray & Co.,

Book-Sellers and Publishers.

Cornwallis Buildings,

CALCUTTA

1925

FOR B A STUDENTS

Prof MANIMOHAN SEN, M A

Outlines of Economics (6th Ed) ...	5 0 0
Modern Constitutions (2nd Ed)	2 8 0

University Questions on Indian Economics with Answers by a Gold-Medalist, 1909-1925 .	1 4 0

OUR UNIVERSITY TUTORIAL SERIES

General Editor · Prof M SEN, M A

FOR B A STUDENTS

Shakespeare's Othello (Text with Notes, 3rd Edition)	2 8 0
Notes on Modern Thought (for 1926) .	2 8 0
" " " (for 1927)	2 8 0
" Burke's Speech on American Conciliation (with Text, 2nd Edition)	2 0 0
" Shakespeare's Merchant of Venice (with Text) .. .	2 8 0
" Shakespeare's Julius Cæsar (with Text) ..	2 8 0
" Bible, Part III, for 1927 ..	1 12 0
" Books and Ideals ...	2 12 0

General Economics

SEVEN YEARS CALCUTTA UNIVERSITY QUESTIONS
WITH FULL ANSWERS
(1919—1925)

BY

A GOLD MEDALIST

SEN, RAY & Co.,
BOOK-SELLERS & PUBLISHERS
Cornwallis Buildings,
CALCUTTA
1925

Published by
S C Mukherji for Messrs. Sen Ray & Co.,
Cornwallis Buildings
Calcutta

PRINTED BY
M AZHAR ALI MOLLAH,
AT THE SEN PRESS,
Cornwallis Buildings, Calcutta

1919

Question 1—*What is meant by elasticity of demand in reference to commodity? Give illustrations*

Answer—If a *small* alteration in the price of a commodity produces a *relatively large* alteration in the demand for it, then the demand is said to be *elastic* For example, if an article is offered at Rs 3 and 50 people purchase it per week, and the price is lowered to Rs 2 8 and 200 people buy it, then the demand is elastic On the other hand if a *considerable* alteration in price *fails to affect the demand much*, it is *inelastic* In the words of Marshall, "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price"

Marshall has suggested that we should call the elasticity of demand "unity," so long as the amount demanded at a price multiplied by the price (that is, the aggregate sum paid for what is sold) remains constant If it were more or less elastic than this, we should say its elasticity was greater or less than unity as the case might be Naturally a demand has different elasticities with reference to different quantities Beneath is an example of a demand which has elasticity equal to unity at first, then elasticity greater than unity and finally elasticity less than unity

Amount demanded	Price offered			Aggregate paid (i e, the product of figures in columns 1 and 2)			
	Rs	A	P	Rs	A	P	
1	20	0	0	20	0	0	Elasticity unity
2	10	0	0	20	0	0	
3	6	10	8	20	0	0	
4	5	0	0	20	0	0	
5	4	2	0	20	10	0	Elasticity greater than unity
6	3	12	0	22	8	0	
7	3	0	0	21	0	0	Elasticity less than unity
8	2	8	0	20	0	0	
9	2	2	0	19	2	0	
10	1	8	0	15	0	0	

Question 2.—*What is the importance of business ability, as a factor of production? How can it be increased?*

Answer.—Land, labour and capital, the three factors of production, can do nothing separately. In order to be of any use they must be united, either in the same hand, or at least, under the same direction. The man who initiates production, combines the different factors in the right proportion and manages them in such a way as to get the best possible result, is called the *Entrepreneur*. *To the different agents of production, he brings his special contribution, i e., business ability or enterprise. Business ability is thus considered an important and a distinct factor of production.*

Constructive genius of the highest type seldom owes much to education: but, with that exception, all orders of business ability may be fostered by appropriate preparation in early years. Now-a days organised experience is more serviceable than quick flashes of individual initiative. In America and Germany, one witnesses increasing application of a broad University training in the conduct of business. "The leading characteristic of modern advance" observes Marshall in *Industry and Trade* "is its increasing dependence on faculties and aptitudes that need to be developed by patient study, if not by some sort of academic discipline."

Question 3.—*What is the 'law' of population according to Malthus? To what extent is it applicable to modern conditions in India?*

Answer.—See Ans. to Q. 9 (b), 1910.

The following are the three propositions of Malthus—

1. Population is necessarily limited by means of subsistence.
2. Population invariably increases where the means of subsistence increase, unless prevented by some very powerful and obvious checks.
3. The checks are all resolvable into moral restraint, vice and misery.

(See answer to question 9 of 1910, in pages 38—40)

Over population as a tendency exists in India. Birth-rate in this country is exceptionally high on account of universality of marriage and prevalence of religious ideas extolling possession of children. During the last half a century there has been a remarkable growth of population in India. The production

of food-stuffs has also increased, but not in the same proportion. This is due to the fact that limits of cultivation have been reached in many provinces As moral restraints are not widely practised the positive checks have vigorously come into operation, *e g*, short expectation of life, heavy infant mortality, high number of female deaths at the reproductive ages, death due to starvation, epidemics, etc , etc

It is high time to take a stock of the present situation. It is no good bringing into the world so many street-beggars Thoughtless reproduction should be stigmatised as criminal If wise and prudential checks are adopted, the standard of living of the whole population will be lifted and India will escape from a lot of vice and misery, poverty and disease

Question 4—*On what does the growth of wealth devoted to productive purposes depend?*

Answer—Wealth devoted to productive purposes is called capital Capital is the result of saving At the root of this saving there may be different motives, *e g*, provision for sickness and old age, vogue of rising in the social scale, provision for one's descendants, the power that it gives, the mere pleasure of possession, etc

But even these motives would not be sufficient if the conditions were not favourable for saving—

(*a*) There must be *security* in the country, which according to Mill, consists of protection by the government and that against it If a despotic government arbitrarily confiscates all accumulation of wealth in the hands of its subjects, no body, under that government, will be encouraged to save The effect will be similar when in a democratic country very high taxes are imposed on the wealthy If the government is too weak to protect its subjects from external or internal attacks, people can hardly be expected to save

(*b*) Another important condition for any extensive accumulation of wealth is the *existence of money economy* One cannot save any amount of rice, but any amount of precious metals may be saved This would give one a claim to all forms of wealth at all times The development of credit organisation has vastly increased the possibilities of saving

(c) Other things being the same, accumulation will vary directly with *facilities for investment* Since the institution of Savings Banks and Joint stock Companies even the poor have saved considerable sums

(d) The *rate of interest* may act in two ways The higher the rate of interest, the greater is the stimulus for saving In certain cases, it may also act in the opposite direction A man wants to save enough to bring him a decent income in the future With a high rate of interest a smaller sum, and with a low rate of interest a larger sum will be necessary to fetch that income

In this connection it may not be out of place to consider if there is an element of *abstinence* in saving While it would be absurd to suggest that any abstinence is practised by the great capitalists it can be maintained that small investors do practise some sort of abstinence when they sacrifice present enjoyment for future benefit

Question 5—*How is the balance of indebtedness between two countries settled in normal times?*

Answer—The exports and imports are but one element—a very important one, it is true—in the sum of commercial transactions between two countries In order to understand the exact position of a country in the sphere of international trade, we must consider not merely its exports and imports but its *equation of indebtedness* It is, therefore, necessary to understand the nature of the different components of the equation of indebtedness. The following is a list of items which go to determine the balance of indebtedness

(1) Imports and exports—A country (e g, India) is a creditor by the value of its exports and is a debtor by the value of its imports

(2) Loans which a country gives or receives—A country is a debtor by the loan it receives and a creditor by the loan it gives

(3) Annual interest on capital already invested
(4) Repayment of a loan previously incurred
(5) Earnings of native merchants living abroad.
(6) Transmission of money for benevolent purposes

(7) Shipping services, freight charges —English ships carry Indian goods and so England is a creditor of India for freight for these shipping services

(8) Government expenditure in foreign country —England is a creditor of India for the Home Charges which India annually has to pay to India

(9) Tributes and indemnities

(10) Expenses of tourists travelling abroad, etc —England is a creditor of India for the expenses of Indian tourists in England, and India is a creditor of England for the expenses of English tourists in India

The equivalence of imports and exports may or may not exist, there is no advantage or disadvantage in an excess of either of these amounts, but the establishment of the equation of indebtedness is simply necessary for the solvency of a particular country In normal times, any excess in the balance, either way, is likely to be settled by the flow of precious metals The process needs a little elucidation Let us suppose, a country has a balance of indebtedness in its favour Precious metals will pour in from other countries in discharge of the debt A large supply of money in the former country will raise its prices Consequently, the demand for its commodities and services will fall to a certain extent There will be a reduction in the balance which stands in its favour, and the equation of indebtedness will re establish itself The movement of securities is most useful in this connection since it obviates the necessity of a drain of a large amount of money-material and checks the alteration of prices which is produced by the passage of money from one country to another

Question 6 —*What is meant by economic rent? What would happen if tenants have to pay more than the economic rent?*

Answer —"Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil"—*Ricardo*

This is strictly economic rent—Often however the term 'rent' is confounded with the interest and profit of capital and in popular language the term is applicable to whatever is annually paid by a farmer to his landlord In economic discussions

rent signifies the theoretical price to be paid for the use of agricultural land The subject of rent can broadly be studied from two points of view—

(1) Land is of different degrees of fertility, as the demand for food necessitates the cultivation of worse and worse land, the rent of the more fertile fields will rise, being proportionate to the difference between fertility of any field and that of the worst land in cultivation Suppose on an island there were two pieces of land, A yielding 100 bushels where B yielded only 80, then the rent of A will be 20 bushels, if both were cultivated Fertility includes situation with regard to markets.

(2) Instead of taking worse land into cultivation, the increased demand might be met by cultivating the fertile land more intensively But by the law of diminishing returns the extra bushels would cost more than the earlier bushels, and hence the earlier ones could yield a rent Thus if 2000 bushels were obtained, of which the first thousand cost *2s 6d* and the second thousand *3s 6d* each, then the first thousand will yield a rent of *1s* a bushel

This being the case, it is clear that *rent is not paid by the marginal land or the marginal dose of productive power As the cost of production in these marginal cases determines the price of the whole agricultural produce and rent forms no element of this marginal cost of production, rent does not enter into the price of agricultural produce—rent is not price determining but price-determined* High rent is not the cause of the high price of agricultural produce but high rent is the effect of the high price of agricultural produce

Now, if tenants cultivating all grades of land have to pay something more than the economic rent, it is natural that the cultivator of the worst land or the application of the last dose of capital and labour will not escape from paying this charge By supposition, it barely pays them to remain in the field and if any additional burden is imposed, they simply cannot bear and must transfer it elsewhere Thus the extra charge is included in the cost of production and shifted on to the consumers of agricultural produce It has the effect of raising prices If tenants have to pay something more than the economic rent, they get it out of the consumers of agricultural products by enhancing their prices

Question 7 *Indicate in any three of the following cases the manner in which earnings are determined by demand and supply for that kind of labour* —

(*a*) *The leader of the Calcutta Bar*

(*b*) *A member of the Indian Civil Service*

(*c*) *A graduate of the Calcutta University*

(*d*) *A carpenter in Calcutta*

(*e*) *A chauffeur*

(*f*) *A sweeper*

Answer —The modern theory of wages is based on the view that labour, whether mental or manual, has a demand as well as a supply price, the former measuring the efficiency and the latter the standard of living of the labourer There are some apparent exceptions, but the theory holds good in the generality of cases

(*a*) **The leader of the Calcutta Bar**—The supply of the service is absolutely fixed The extra income which the leading barrister earns by extraordinary natural abilities cannot be placed under the head of wages A part of the income is profits on the capital invested in his special training, a part is the reward of exceptionally hard work and a part is due to chance, to opportunity, to the conjuncture, and to luck Thus, there is an element of rent in the earnings of the leading barrister of Calcutta

(*b*) **A member of the Indian Civil Service** —The Indian Civil Service is one of the most highly paid services in the whole world The salary of a member of the Indian Civil Service is the price that is paid in the long run for the supply of labour and ability that seeks the occupation The salary of a member of the Indian Civil Service is thus determined by the long period demand and supply price of his efficiency The salary is high because a member of the Civil Service has a fairly high order of ability as tested by competition and such ability is limited in supply, and also because there is a high cost of education Political considerations perhaps help to raise the level of the salary to a somewhat higher figure than would be otherwise the case

(*c*) **A graduate of the Calcutta University**—In these days, there are any number of Calcutta graduates who are unemployed and hunting for jobs Their supply has rapidly increased while demand remained almost the same as before Naturally, their earnings are lower than what would be indicated by an estimate of the money spent in educating a graduate and hardships endured

(*d*) **A carpenter in Calcutta**—There is a wide field for carpentry in Calcutta in connection with house building, furniture-making, etc The carpenters flock to the city from neighbouring districts—even from distant countries like China, while their skill is in constant use in making furniture, building houses, etc Their wages are on the whole determined by the demand and supply theory

(*e*) **A chauffeur**—Some technical knowledge, practical experience in driving and a little acquaintance with mechanical engineering are required for qualifying a person as a chauffeur To pick up these things some initial expenses are necessary The person has to undergo a course of training and procure a driving license The salary must be such as would pay him to specialise for the job, granting this, any number of chauffeurs are available Their earnings are fixed by the demand for and supply of their labour

(*f*) **A sweeper**—The disagreeableness of work seems to have very little effect in raising wages in certain occupations Sweepers belong to this class They are unfit for any but the lowest grade of work They think almost exclusively of the wages they can earn they cannot afford to pay much attention to incidental discomforts Indeed, the influence of their surroundings has prepared many of them to regard the dirtiness of an occupation as an evil of but minor importance The dirtiness of the occupation of a sweeper is a cause of the lowness of the wages earned in it Marshall calls this an 'evil paradox' There is no more urgent social need than that labour of this kind should be made scarce and therefore dear

Question 8—*Discuss briefly the effect of growth of communications on the organisation of production and markets in a country like India*

Answer—The development of the means of communication has a very intimate bearing upon the organisation of pro-

duction of a particular country situated like India India is a vast territory divided into innumerable villages, districts and provinces each of which ran more or less on a self-sufficient basis Each area had a number of industries which supplied local wants and were managed on a small scale The various localities had each a market of its own where a limited number of commodities were bought and sold

The introduction of railways and telegraphs, etc, has greatly disturbed this state of things It has *firstly* helped the growth of large scale production Big factories are steadily replacing small industries scattered over different parts of the country All obstacles in the way of transport have been swept away Large-scale production has thus been made possible in India *Secondly*, it has helped also localisation of industries, when swift means of communication can easily convey goods to distant markets, proximity to markets is not sought after by captains of industry Under modern conditions industries localise in places where raw materials and motive power are available at a cheap rate The localisation of cotton mills in Bombay and jute mills in Bengal is an illustration of this tendency

The growth of communications had the effect of widening the markets In the absence of rapid means of transport, each locality had a market of its own, and goods were scarcely transferred in sufficiently large quantity from one market to another The laws of demand and supply operated in a limited manner and custom rather than competition held its sway Here again the innovation of railways and telegraphs has completely changed the old order For goods which command universal demand and are not easily perishable, one price rules all over India (making necessary allowances for cost of transport, etc) A shortage in the supply of rice in Bengal is made up by import from Burma Any disturbance in the cotton market at Bombay is immediately reflected in the price of cotton at Central Provinces Any serious discrepancy in the prices of these articles in two different parts of India is at present unimaginable The widening of the market is the gift of the growth of communications

Question 9 —*What are the principal canons of taxation ?*

Imp.

Answer —The fundamental rules which should, as far as possible, be followed by a statesman in forming a system of taxation are called the canons of taxation The best known are those taken from Adam Smith's *Wealth of Nations*·—(1) Equality "The subjects of every state ought to contribute towards the support of the government, as nearly as possible in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state"

(2) *Certainty* —"The tax which each individual is bound to pay ought to be certain and not arbitrary The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person"

(3) *Convenience*·—"Every tax ought to be levied at the time or in the manner, in which it is most likely to be convenient for the contributor to pay it"

(4) *Economy* —'Every tax ought to be so contrived as both to take out and keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state"

The best modern set of "canons of taxation" are taken from Bastable's *Public Finance* —

(1) Taxation should be productive

(2) Taxation should be economical, which is further divided into—(*a*) taxation should be inexpensive in collection and (*b*) taxation should retard as little as possible the growth of wealth

(3) Taxation should be justly distributed

(4) The tax system should be elastic.

(5) Taxation should be certain

(6) Taxation should be convenient

Question 10 —*What are the grounds on which the Socialists base their scheme of distribution of the national dividend between labour and capital?*

Answer —According to the Socialists the conditions necessary for the existence and growth of capitalism are a class of

rsons who have a virtual monopoly of the means of produc-
n (viz., land and capital) and another class of labourers who
e free but destitute of the means of production

In a régime of capitalism industrial operations are carried individual capitalists employing wage-earners The great m of the capitalists is to increase their profits This is secured the appropriation of what Karl Marx called Surplus Value

In the modern capitalistic society the workman has nothing ut his labour power to sell This is bought by the capitalist and ven when the capitalist pays the labourer the market price of is labour, he does not pay the full value of labour The apitalist appropriates to himself a portion of the product of e workman's labour the whole of which ought to go to the workman What is so appropriated, called by Marx *Surplus Value*, is the source of capitalistic income Hence *the interests of the capitalists and the labourers are conflicting and in the economic struggle between them, the workmen suffer* and are *going down The socialists state that the capitalist appropriating Surplus Value is robbing the labourer and is depriving the labourer of his ust remuneration And their remedy is socialism* The socialists are against the control of land and capital by the landlord and capitalist class Hence the socialists propose to make the state the owner of all land and capital in the country and they propose to make all business (mineral, manufacturing, etc) state-owned and state managed abolishing private management of industry as well as private ownership of land and capital *Under socialism, all citizens will thus be employees of the state, earning wages, and the state will secure a fairer distribution of income among all sections of the population than is found under the present capitalist régime*

To some socialistic writers the present private ownership of land appears the source of all evils Landed proprietors, in virtue of the monopoly which they possess, absorb almost the whole of the benefits which accrue from the increase of population and the perfection of machinery While rent goes up, interest goes down and wages fall to a minimum Every country presents the same phenomena—extreme poverty at one end and extravagant luxury on the other

"Once get rid of rent, poverty will be banished, inequality of wealth will be removed and economic crises will disappear"

—this seems to be their view The whole of unearned increment from land must be taxed out of existence Such a tax on land rent would yield sufficient to defray all state expenditure and other forms of taxation could then be dispensed with

---

1920

Question 1 —*Distinguish between nominal and real wages and point out the special allowances to be made in ascertaining the real wages of any group of labourers*

Answer —If we reckon the reward of labour simply in terms of money, the wages are called **nominal wages** If we go behind the money and consider what it will purchase and if we also take into account all the other desirable things the worker obtains in return for his toil, we arrive at the conception of **real wages**

In order to find out real wages we have to take into consideration the following facts —

(1) Other things remaining the same, the same money wages will be greater or less real wages according to the quantity of labour involved This may be roughly measured by considering the *time* and *intensity of labour*, *environment of the worker*, *effect of the work on health* and *cost of preparation for the particular form of labour*

(2) Variation in the purchasing power of money specially with regard to necessaries which form the major part of a workman's budget

(3) The opportunities afforded for extra earnings by himself or the members of his family

(4) Additional payments in kinds or services

(5) Allowance must be made for all trade expenses, as for example, expenses incurred by carpenters for tools

(6) Uncertainty of success and irregularity of employment.

(7) The disagreeableness of the work to be done But if such work can be done by people with little industrial ability, the disagreeableness seems to have very small effect in raising wages The inefficient compete eagerly for what little work

ney are fit for and cannot give much thought on its disagreeableness The dirtiness of some occupations is a cause of the owness of the wages This Marshall styles as 'the evil paradox "

Thus the attractiveness of a trade depends not on its money earnings alone but also on all those points that have been just considered These together will make *the net advantages of a trade or* real wages If competition were perfect and labour mobile, the net advantages of all employments would tend to be equal Thus extra disabilities of any kind would be compensated by extra wages

Question 2 —(a) *What is money?* (b) *Describe its chief functions* (c) *Comment on the statement—" Bad money drives good money out of circulation "*

Answer Definitions of money—(1) The term 'money' is sometimes used to describe all media of exchange This definition is too wide

(2) Another view restricts money to what may be called 'commodity money ' This again is too narrow

(3) Between these two extremes is the view that *all media of exchange and payment whose acceptance the law requires in discharge of debts, may properly be called money* Of course, standard money would ordinarily be covered by this definition, also convertible paper money, so also inconvertible paper, if it were legal tender "Money" says Walker "is that which passes freely from owner to owner throughout the community in final discharge of debts and full payment for commodities " In England, this definition would include gold coins and Bank of England notes, and silver and copper coins to a lesser degree, since they are only "legal tender" to limited amounts

Functions of Money —The various duties which a good circulating medium has to perform in order to facilitate exchanges to the greatest possible extent are called the "Functions of Money" These functions are —

(a) To act as a *medium of exchange*, to be universally acceptable, and to do away with the difficulties of barter ,

(b) To be a *measure of value*, something in which the value of all other commodities can be estimated, and therefore compared ,

(c) To act as a *standard for deferred payments*, something in terms of which the amount to be paid at a future time can be accurately expressed to the satisfaction of both debtor and creditor.

(d) To be a *store of value*, something in which the means of buying other goods, or purchasing power can be retained

Gresham's Law.—If in a country two forms of money one being good and the other bad, are circulating freely together, both being legal tender to any amount, *the bad money will tend to drive the good money* out of the country or *out of circulation*. The reason is that when a payment is made in the particular country the debtor can compel his creditor to receive the bad money, but when he wishes to make a payment abroad in some foreign country, he will be obliged to use the good money, since his foreign creditor is not bound by the same 'legal tender' laws. Hence the good money will be actually sent abroad, or hoarded. This law was enunciated in its present form by Sir Thomas Gresham Financial Minister of Queen Elizabeth

[See also answer to question 8, 1909 (pages 11—12)]

Question 3 —(a) *Distinguish marginal utility from total utility* (b) *How far is it correct to say that value depends on marginal utility?*

Answer—The *total utility* of a given quantity of any commodity means the whole of the utility or satisfaction obtained by the person consuming it, whereas the *marginal utility* means the addition made to the utility by the addition of the last unit consumed. Marginal utility thus expresses the amount of satisfaction (or utility) obtained from the last portion of any article which the purchaser thinks just worth buying at the market price

The following numerical example will bring out the difference clearly—

Seers of sugar consumed per month		Total utility derived from consumption	Marginal utility
1		100	100
2	100+80=	180	80
3	100+80+50=	230	50
4	100+80+50+40=	270	40
5	100+80+50+40+20	290	20

Jevons and those that agree with him contend that the value of a commodity is fixed by its marginal utility. Ricardo and his followers maintain that the value of a commodity is fixed by the cost of production Both are partly correct, because *cost and marginal utility together and not singly determine value Each commodity has a demand price as well as a supply price—the former measuring its utility and the latter the cost of production Value is determined at the point where these two prices meet and coincide Marshall observes that marginal utility and cost of production jointly govern value as the upper and the under blades of a pair of scissors cut a piece of paper*

Question 4 —*Examine the effects of machinery on labour, and discuss whether the progress of mechanical invention is injurious to the labouring classes*

Answer —Machinery may be of various kinds—(1) Capital-saving, (2) neutral, and (3) labour saving

Capital saving machinery is helpful to labour, because it diminishes the amount of capital required for a particular industry, thus it lessens the share of capital and increases the share of other factors of production including labour Neutral ones also help labour by increasing the National Dividend out of which wages are paid to workers *It is only the labour-saving appliances whose effect upon labour is very complex and requires a detailed study*

Where permanence of employment is assured wage earners are rarely opposed to labour-saving appliances But when circumstances are not so favourable it is almost sure that *a number of labourers are dismissed upon the utilisation of such machinery This is, however, the short-period result Ultimately the whole of the displaced labour may be found in active employment for the following reasons—*

(1) After the appearance of the labour-saving machinery, the commodity for the production of which it is engaged, will be offered cheaply If the demand for the commodity is quite elastic, a larger quantity will be demanded than before, thus conceivably a large portion of the displaced labour might be again employed in making them

(2) Extra labour might be needed for machine-making industry

(3) Any displaced labour which is not absorbed by machine making will be used to provide other goods which people can afford to purchase when they get the particular commodity cheaper

When new machinery appears some operatives may lose employment for a time, great hardship may consequently be caused to individuals The duration of the unemployment depends, among other things, upon the powers of enterprise and capital to respond to a new situation and people's capacity to adjust themselves to new trades. Taking a broad view of the situation, progress of mechanical invention often helps, rather than hinders the cause of the labouring classes

[See also answer to question 4, 1911 (pages 46b—46c)]

Question 5—*(a) Define the term 'market' (b) What are the chief conditions which a commodity must satisfy to have a wide market? (c) State, with reasons, what you would expect to be the extent of the market for bricks, fresh vegetables, and precious metals*

Answer—Market is a place in which there is only one price for a certain quantity of a certain kind of article at a given moment. It implies the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly The extent of a market is variable and depends mainly on the commodity sold there

Characteristics of goods possessing a wide market—There are many special causes which may widen or narrow the market of any particular commodity, but nearly all those things for which there is a very wide market are—(i) *in universal demand*

(ii) and capable *of being easily and exactly described* Thus for instance cotton, wheat and iron satisfy wants that are urgent and nearly universal They can be easily described, so that they can be bought and sold by persons at a distance from one another and at a distance also from the commodities If necessary, *samples* can be taken of them which are truly representative and they can even be *graded* by an indepen-

dent authority, so that the purchaser may be sure of the quality of goods he is buying without even seeing them

(iii) Commodities for which there is a very wide market must also be *such as will bear a long carriage*

(iv) They must be somewhat durable

(v) Their *value* must be *considerable in proportion to their bulk*

The market for *bricks* is practically confined to the neighbourhood where they are manufactured, because they can scarcely bear a long carriage Bricks of certain exceptional kinds have a comparatively extensive market The markets for *fresh vegetables* are confined within narrow boundaries They are easily perishable and cannot be carried to long distances *Precious metals* satisfy in an exceptional way the conditions of being in general demand, cognizable and portable They have been chosen by common consent for use as money, to represent the value of other things The whole civilized world may, in a sense, be regarded as one market for the precious metals

Question 6 —*Under what conditions can a group of labourers in a trade, by artificially limiting their supply, secure a considerable increase of their wages ?*

Answer —The *first* condition is that the particular group of labourers should be essential or nearly essential to the trade, no good substitutes being available at a moderate rate of wages

The *second* condition is that the commodity in the production of which the group of labourers is a necessary factor, should be one for which the demand is stiff and inelastic This includes the condition that no good substitutes for the commodity are easily available

The *third* condition is that only a small part of the expenses of production of the commodity should consist of labourers' wages, so that a considerable increase of the wages will not effect an appreciable rise in the price of the commodity

The *fourth* condition is that the supply of the other factors of production should be very elastic, *i e.*, even a small check to the amount of commodities demanded should cause a considerable fall in the supply prices of other factors That will increase the margin available for paying higher wages to the group of labourers

Question 7.—*(a) On what grounds is protection generally upheld? (b) To what extent do these arguments apply to Indian conditions?*

Answer.—(1) *The infant industry argument for protection*

In advancing the case for protection the place of honour must be given to the *infant industries argument. A country should protect its infant industries during their infancy against foreign competition either* (i) *by means of taxes or duties on imported foreign goods* (ii) *or by bounties* granted to the domestic producers. It points out that the superiority of one country over another in a branch of production may often arise only from having begun it sooner. There may be no inherent advantage on one part or disadvantage on the other, but only a present superiority of acquired skill and experience. The backward country may make up the leeway if its industries are given some sort of artificial shelter from the competition of the stronger rivals during their infancy. Such shelter may be extended in the shape of protective import duties or bounties. The immediate loss resulting from the imposition of such duties or bounties may be overlooked in view of the future gain. But the protection should be confined to those cases in which there is a good ground of assurance that the industries which it fosters will after a time be able to dispense with it. Recently the scope of the *infant industries argument* has been greatly widened.

(2) *The diversification of industry argument*

We might turn our attention to the other cogent argument on behalf of protection—that for the *diversification of industries*. Diversification of industry helps to afford a more ample and various field for enterprise and to furnish greater scope for the diversity of talents and dispositions.

India

Both these arguments apply to Indian conditions with special emphasis. India is a vast continent teeming with innumerable varieties of agricultural and mineral resources. The population of the country is intelligent and industrious. There is room for vast industrial expansion in India. But the first fruits of pioneer industrialism of this country are attacked with strong foreign competition on all sides. If these *infant* industries of India are helped to tide over the initial difficulties, they are

ture to hold their own in a maturer age The *protection to nascent and infant industries*, thus, is a crying need of India

Diversification will be no less helpful to the cause of Indian industries *An excessive love of agriculture and too much pressure of population on land are potent causes of poverty and famine in India The successive Famine Commissions repeatedly have pointed out diversification of industries as a powerful remedy against famines,* inasmuch as it would divert the surplus population from land and agriculture and get them employed in manufacturing and other industries independent o the freaks of nature and season

Diversification points out the error and suggests the remedy of not keeping all the eggs in one basket It reconciles the claims of agriculture and various industries, and affords suitable fields where genius of different types may fructify and make its mark

Question 8—*Discuss any two of the following theories of wages:—(a) Subsistence Theory, (b) Wages fund Theory, and (c) Residual Claimant Theory*

Answer Subsistence Theory—This theory states that labour is bought and sold in the market like other commodities and that its value is determined by its subsistence The subsistence of labour is represented by—

(1) the cost of all that the worker must consume to maintain his productive force,

(2) the sum necessary to replace him when he is no longer able to work

Wages are thus invariably reduced to the strict minimum necessary to support a worker and his family In actual life, however, we notice that this is not the case Some workmen get more than the subsistence level Moreover, the theory cannot explain the irregularity of wages in different trades and occupations

Wages fund Theory—This may be expanded into three propositions —

(1) In any country, at any time, there is a fixed amount of capital devoted unconditionally to the payment of labour. This is *the wages-fund* and it represents the demand for labour

(2) In any country, at any time, there is a fixed number of labourers who must work independently of the rate of wages This presents the supply of labour

(3) The wages fund is distributed amongst the labourers under the influence of competition Thus *the rate of wages will depend on the relation between the number of workers and the wages fund* A rise in wages is therefore only possible if the wages fund increased or the working population diminished. Otherwise, increased wages can only be paid to a certain section of wage earners at the expense of other sections

Criticisms against the Wages fund theory

(i) In criticism of this theory it can be at once pointed out that *there is no fixed wages fund*, no fixed amount of capital unconditionally reserved for payment of wages No earmarked fund of money or goods is set apart out of which wages of labourers are disbursed

(ii) In fact, the rate of wages will depend to some extent on what the labourers can produce

(iii) Again the remuneration of workers is greatly regulated by their standard of life, *i e.*, their habits and ways of living

(See also answer to question 2, 1911, pages 45—46a)

Residual Claimant Theory—*According to this theory the value of labour cannot be considered like the value of an ordinary commodity* subject solely to the laws of demand and supply under free competition *The worker is not an ordinary commodity He is an instrument of production, and the value of an instrument of production depends on its productiveness* but labour cannot take the total value produced by it, for the other factors must be paid for *He receives as wages all that remains of the total product after the other factors* (land, capital, organisation) *have been paid for* (Wages=net product of industry—rent—interest—profit) He is a *residuary legatee* or the *residual claimant* Again the worker alone will be benefited by every increase in the productiveness of labour

This theory is partly true The productiveness of labour exercises some influence on the rate of wages, for it increases the wealth of the country part of which at least would be used productively and would thus increase the demand for labour *The chief*

error of the theory lies in the fact that it takes no account of the supply of labour

(See also answer to question 11, 1909, page 15)

Question 9—(a) *Describe the essential features of bimetallism and state the arguments which are generally urged for and against its adoption* (b) *Under what conditions is it still possible to maintain a successful scheme of bimetallism?*

Answer—Bimetallism, as its name implies, is a monetary system in which the principal, or standard, money is composed of gold and silver together, instead of either alone According to this system, *free coinage of both metals* is established at a *fixed ratio* of exchange, and each metal is to be *unlimited legal tender*, so that people who have debts to pay may have the option of paying either metal

Arguments for bimetallism

It is claimed on behalf of bimetallism that it would diminish (1) the fluctuations of the price level, and (2) would secure a more stable standard of value than mono-metallism (3) Also it is said that bimetallism would increase the quantity of money and would thus bring about a fall in the value of money and this fall in the value of money under bimetallism (a) would benefit debtors by reducing the value of their debt (b) would benefit producers by bringing about a rise in the prices of commodities

Arguments against bimetallism

(1) The critics of bimetallism point out the *great difficulty of maintaining the rate between the two metals*

(2) Again in all probability the *degree* of fluctuations of changing prices would be less, but *the fluctuations would be greater in number* In other words, fluctuations would probably be of smaller range but of greater frequency (3) Further, the verdict of history is against all attempts to establish bimetallism Under Gresham's Law *the bimetallic country would be left with only one money and that the worse money*

The advocates of the scheme assert that if a monetary union was formed over a very large area, annual changes in the supply of either metal would not affect the whole mass

sufficiently to alter the ratio between them *Bimetallism to achieve any success at all in steadying the ratio of exchange between silver and gold, would have to be international in its scope* This requirement interposes insuperable obstacles to its adoption—

(1) International prejudice

(2) Patriotic desire of the people of each country to have their own system of coinage

(3) The difficulty of changing the ratios of coinage already existing in different countries

(4) The shock to credit

(5) The disturbance which the change would produce in existing contracts and prices

The power of government in forcing the use of a particular kind of money has its limits To make money legal tender is by no means necessarily to make it pass in general circulation Whatever may be the abstract possibilities of bimetallism, the project has not a prospect of realisation in the near future

(See also answer to question 5, 1909, pages 30—32)

Question 10 —(a) *Account for the favourable balance of Indian foreign trade* (b) *How far does the excess of Indian exports over imports invalidate the theory that the exports and imports of a country must be equal?*

Answer —India's favourable balance of trade is due to the following facts .—(1) *India has to pay interest on debt she has incurred abroad*

The Secretary of State exacts Home Charges from her The *earnings* of European merchants, lawyers and officers, etc , are remitted home annually The country has to pay charges on *freights* to European ship owners for carrying her bulky goods Further the people of India have to send money to their relatives and friends residing in foreign countries To meet these additional obligations over and above what she incurs by her consumption of foreign articles (*i e imports*), *India has to export more than she imports That explains her permanent favourable balance of trade* (i e excess of exports over imports)

The chronic excess of Indian exports does not run counter to the well known maxim that the total exports and imports

of a country must be equal There is such a thing as 'an invisible export' or 'an invisible import' It is not the equivalence of imports with exports that constitutes the stable condition of trade, but the equivalence in the sum of debts due to the country, and that of debts due by it

(See also answer to question 5, 1919)

1921

Question 1 —*Distinguish between value and price, and inquire whether there can be (a) a general rise of values, (b) a general rise of prices*

Answer —"The value of one thing in terms of another at any place and time is the amount of that second thing which can be bought there and then in exchange for the first"—(Marshall) If the supply of all commodities increase or decrease in the same rate simultaneously, the ratio of exchange between any two of them will not undergo the least alteration Hence it is evident that *a general rise or fall in values is impossible*

"By the price of a thing" says Mill "we shall understand its value in money" "By the price of a commodity" observes Taussig "is signified the amount of money which it will command" *A general rise or fall of prices is thus imaginable* When there has been a general rise in prices, the supply of money has become relatively abundant and its value is said to have fallen When there is a general fall in prices, money has become relatively scarce and there is a rise in its value

Question 2 —*State the law of demand When is a demand for a commodity said to be elastic? Consider in this connection the nature of the demand for salt and pianos*

Answer —The greater the amount of any commodity or service offered for sale in any market, the less the price that can be obtained per unit of it and *vice versa*

If a small change in price causes a considerable change in the demand for a commodity, the demand is said to be *elastic*, and in the converse case inelastic (See ans to Q 1, 1919)

Elasticity of demand is a relative term Perfect elasticity or inelasticity is found nowhere in the world Generally, the demand for necessaries is inelastic, whereas that for luxuries is elastic Salt is a vital necessity for the life and health of a people It is universally consumed—alike by the rich and the poor So in a rich country like England, a rise in the price of salt is not accompanied by a marked diminution of its consumption The demand for it is inelastic (In a poor country like India, even the demand for necessaries like salt is elastic, and a fall in price will be accompanied by a large increase in the demand for salt as the people are poor and cannot buy the required quantities of salt at the present high price)

The case for pianos may be considered under the head of luxuries Its use is by no means universal Neither is it indispensable for life All the same it is a covetable commodity

A fall in the price of the piano greatly increases the demand for the musical instrument and a rise in its price diminishes its customers among the people of moderate means Thus the demand for the piano may be pronounced to be elastic among the people of moderate means—the demand for it is inelastic among the very rich whose demand is satisfied at the present price and will not be increased or decreased by a fall or rise in its price, and the demand for the piano is inelastic also among the poor who will be unable to buy even after a fall in price

Question 3 —*What do you understand by capital? How does capital originate? Distinguish between fixed capital and circulating capital*

Answer Definition —Capital is that portion of wealth which yields or is intended to yield future income It is wealth devoted to purposes of production

Origin and growth—See answer to question 4, 1919

Fixed and Circulating Capital —*Fixed capital* is embodied in a form in which it can be used a number of times without complete exhaustion of its utility in that form, *e g*, machinery, buildings, etc

Circulating capital is completely consumed or changed in form by one single use, *e g*, coal, food, money, etc

Question 4—*State the causes leading to the localisation of different industries Illustrate some of the consequences of such localisation by reference to Indian industries*

Answer—We find in practice that certain industries are specially developed in certain localities, *e g*, cotton manufacturing industry in Lancashire in England, in the Bombay Presidency in India An enquiry into causes leads us to divide them into two great classes, natural and artificial

Causes of Localisation

I **Natural causes**—(1) *Climate*—Certain industries thrive in a particular atmospheric and climatic condition, as for example, cotton spinning requires a damp and humid climate This explains the development of the industry in Lancashire

(2) *Existence of raw materials in the neighbourhood*—Iron industries in England were at first localised in places where wood was plentiful, for charcoal was necessary for smelting iron, but when inventions made it possible to use coal and coke for that purpose the industries were shifted to places where coal could be had in abundance

(3) *Proximity to water-power*—This arises when there has been some development of machinery Thus when machines had been invented and yet the steam engine had not been perfected, water power was almost essential and industries using such machinery migrated to places where water-power was available

II **Economic and political causes**—(4) *Availability of capital* is often a great factor.

(5) *Patronage of Courts*—Artistic industries are largely in demand by the rich and fashionable people who live in the vicinity of royal courts They encourage the development of these industries

(6) *Some sort of political or social accident* may cause migration of skilled workers from one country to another These people carry their craft with them and develop it in their new home This has happened in England where skilled woollen weavers had to immigrate from France and Flanders on account of religious persecution They settled in England

and developed the production of the finest qualities of woollen goods

The next point to consider is that when an industry has been localised in a certain area, there is a tendency for it to stay there. With the progress of civilization artificial causes of localization have a tendency to disappear and modern inventions to some extent counteract natural advantages. Humidity of climate is artificially produced by steam. Water-power has made room for the steam-engine. Raw materials are now carried from one end of the world to the other.

How then does localisation continue and what are its advantages?

(*i*) When an industry has been localised in a certain place for sometime wholesale traders will generally go there to get their supplies, *i. e.*, the place has earned a sort of goodwill.

(*ii*) A new manufacturer has another reason to locate his factory there, *i. e.*, supply of skilled labour.

(*iii*) Often subsidiary industries grow up by the side of the principal industries utilising their waste products.

(*iv*) The means of communication are adapted both to the acquisition of raw materials by and to the marketing of the products from the locality.

(*v*) Sometimes allied industries grow up side by side.

Localised Industries in India

Cases of localisation of industries are not rare in India. The Muslin industry was a speciality of Dacca where finest yarns were spun in the humid atmosphere. The cotton industry of Dacca and the silk industry of Murshidabad flourished under court patronage. At present *iron and steel industry has localised in the vicinity of Bengal coal and iron mines. Jute manufacture is localised in Bengal,—jute is manufactured in Bengal which has the monopoly in the production of raw jute.*

Localisation may, and often does, lead to undesirable consequences—

(1) If there is only one industry localised in an area, the distress will be all the greater when there is a *depression* of that particular trade, for the workmen cannot get work in other industries.

(2) Certain industries employ very strong men The women and children cannot find work there and must therefore remain idle Sometimes the family is left behind and the worker, bereft of home influences, is easily tempted to vices To obviate this difficulty, it is usual to start such other industries in this area which can profitably employ women and children

Question 5 —*Estimate the advantages of international trade*

Answer —A nation may gain the following advantages by participating in foreign trade—

(1) It is able to procure commodities from foreign countries which it is absolutely unable to produce itself For example, England by international trade is able to procure tea and tropical fruits which England cannot produce

(2) It obtains commodities which it could not produce as cheaply and with the same facility as other countries For example, England by international trade gets wine and silk more cheaply from France than she can produce them herself

(3) Supposing it has superior powers of production in respect of all commodities, even here it will do well to confine its production to those commodities in which its comparative advantage is the maximum and import the rest from other countries

(4) The productive force of each community is set free for application to those natural forces and materials which offer the chance of highest returns

(5) The concentration of special branches of production in one place leads, as the law of increasing returns implies, to further and yet further gain This advantage is nothing else than one of the advantages of division of labour, more particularly, the territorial division of labour

(6) Besides these, foreign trade helps a country to open new markets in foreign countries for its industries stimulating domestic industry and leading to a better adjustment of foreign trade

(7) The social and moral effects of foreign trade are no less important Foreign trade serves as the connecting link, the bond of unity, between different nations and generates a force which makes for peace and harmony among nations

It also brings men of different nations together, thus leads to exchange of ideas between different nations and helps the development of culture and civilisation in the world

Question 6—*Show how by means of a Bill of Exchange a sale of goods to a merchant in London, by a merchant in Calcutta, and a sale to a merchant in Calcutta by a merchant in London, may be liquidated without the sending of specie from one country to another*

Answer—There are two sets of exporters and importers in London and Calcutta respectively There is one creditor merchant in Calcutta who has a claim on a debtor London merchant There is another debtor merchant in Calcutta who has to remit money to a creditor London merchant Ordinarily, one would expect, London will send a sum to Calcutta and Calcutta will send a sum to London in cancellation of their respective debts In fact, money does not pass and repass in that way and *obligations (debts) between men belonging to different nations are generally discharged without the sending of specie (money) from one country to another*

The usual practice adopted can be explained in the following manner The *exporter in Calcutta* draws a bill on the London merchant upon whom he has a claim of, say, Rs 100/- Suppose the *importer in Calcutta* also has brought in goods, worth, let us assume, Rs 100/ *The importer in Calcutta purchases the bill from the exporter in Calcutta and sends it direct to his creditor in London* The exporter in Calcutta thus receives the sum due to him then and there in Calcutta and the importer in Calcutta becomes free from all obligations by sending the bill to the exporter at London *The London exporter presents the same bill to the London importer upon whose name the bill was originally drawn by the Calcutta exporter* The London importer buys the bill and pays the London exporter a sum in £ s d—equivalent to Rs 100/- The London exporter thus receives in cash the sum to which he was entitled when he sold his goods to the Calcutta merchant (importer) At the same time the London importer is saved from the botheration of sending the money to Calcutta and clears off his indebtedness by paying the party who exported from London

This simple illustration gives in short the subtle mechanism of Foreign Exchange In actual life the problem is far more

complex Trade is not between two, but more than two, countries The sum due to a country and that due by it, do not exactly balance each other However, it is evident from the above example that movement of specie is not generally necessary for liquidating debts as between foreign countries

(See Prof M Sen's Outlines of Economics)

Question 7 —*What is inconvertible paper money? What are its defects?*

Answer —*Inconvertible or irredeemable paper money consists of notes for which specie is not obtainable on demand* This may be issued either by governments or by banks—

(*a*) It may consist of notes which although originally convertible, have lost that quality through the insolvency of their issuers

Or,

(*b*) It may consist of paper originally issued without the expectation or intention of paying it in specie The latter form is properly called *fiat money*

Defects of irredeemable (inconvertible) paper money.

(I) Little or no reserve being required in a system of inconvertible paper, the danger of over-issue resulting in depreciation of value is great in the case of inconvertible paper

And of course its value is much less stable than the value of gold money

(2) Under the operation of Gresham's Law, over-issue of inconvertible paper drives metallic money out of the circulation, the displaced metallic money being hoarded, melted or exported to foreign countries

(3) Inflated prices resulting from an over-issue of inconvertible paper *increase the risk of business* Unhealthy speculation becomes a feature of business under these conditions

(4) The *spirit of gambling* introduced into business affects injuriously the standard of business morality.

(5) The rise in the nominal price of property on account of inflated prices makes people think themselves richer than they actually are And so they indulge in extravagant and wasteful expenditure

(6) The wages paid in paper money do not rise as quickly and to the same extent as the prices of commodities, so labourers suffer seriously

Other things being equal, when paper money is issued and comes in circulation, it will displace metallic money in the circulation The larger the issue of inconvertible paper, the greater will be amount of metallic money displaced When the quantity of paper money issued exceeds the quantity of metallic money displaced then we have an over-issue of inconvertible paper, an issue in excess of demand

Question 8—'*The flow of specie from one country to another sets in motion forces which sooner or later stop the flow" Amplify the statement*

Answer—Like other goods, *gold and silver distribute themselves according to the demand for them* Wherever most is offered for them, there they will go Gold and silver will flow out from places where their value is low to places where it is high Thus the proportion which each country will draw to itself is governed entirely by the strength of its demand as compared with the total demand No country can long keep more than its due proportion

According to the doctrine of Ricardo, it is through changing prices that a country rids itself of a surplus of money or supplies a deficiency If there is an exceptional rise in prices, in a country (due to an increase in the quantity of money), foreign countries will sell more to that country attracted by high prices, and so there as an increase of imports into the country, and the excess of imports over exports leads to the export of metallic money to pay for the excess imports, and the export of metallic money brings down prices in the country to reach the level where such a process becomes unnecessary If there is an

exceptional fall in prices in a country (due to a shortage or deficiency in the quantity of money), precious metals come in and commodities are bought by foreign merchants Thus prices at home begin to rise while those abroad have a tendency to fall Thus a point appears when further passage of specie becomes unnecessary In this way, precious metals adjust their supply to the needs of different countries and an equilibrium of prices throughout the world is established

Questions 9 —*State and explain the relations of agricultural rent to the price of agricultural produce*

Answer —See ans to Q 6, 1919

Question 10 —*Distinguish between gross interest and net interest, and account for the high rate of interest generally charged by the Indian money-lender to the ryot*

Answer —The price paid by the borrower to the lender for the use of capital is called interest

Gross Interest —In practice a person often prefers a somewhat risky investment at a high rate of interest to a perfectly safe one at a low rate A portion of this high rate of interest is, then, an Insurance against Risk, and another portion the Earnings of Management incurred in making the risk as small as possible This is called *gross interest* (Gross interest = net interest + insurance against risk + earnings of management)

Net Interest—is the sum demanded by the lender in consideration of allowing another person to use his capital, (but it includes no insurance against the risk of loss of this capital by the failure of the borrower to repay it, also no remuneration for trouble taken by himself) Net Interest is the minimum interest charged by the lender to the borrower who can give perfectly good security for the repayment of the loan *e g* the interest on Government paper in India is *net interest*

Indian money-lenders, *Mahajans, Sowcars and Chetties*, have been subjected to a good deal of adverse criticism in the hands of public men and economists. Money lenders are considered by many as so many Shylocks bent upon having their proverbial pound of flesh If we consider their case dispassionately, the money-lenders appear probably in a somewhat better light

The review of their position reveals that *the high rate of interest which they (Indian money lenders) earn is gross interest which includes net interst, also insurance against risk and also cost of management* Indian ryots have very little capital and a small plot of land, when they borrow money, they are unable to furnish proper securities So the money-lenders who lend money to the Indian ryots have to charge something in addition as insurance against the risk of non-payment There are cases in which such money is never repaid by the ryots to the money-lenders There are instances again where a loan is granted after some sifting enquiry, ten to one, some expenses are incurred on that score In view of these things the money lenders may be justified in charging a higher rate of interest than net interest, but there must be a limit to the raising of the rate of interest

If *Mahajans* transgress rates fixed by law, they have to explain their conduct before a Court of Law and reap the consequences Attempts are being made in various directions to lower the rate of interest and to offer facilities to the ryots to borrow at a cheap rate

1922

Question 1 —*Analyse the following concepts, and point out how they are interconnected —Marginal Utility, Total Utility, Price and Consumers' surplus*

Answer **Marginal Utility and Total Utility** —See answer to question 3 (a), 1920

Price and Consumers' Surplus —The *price* of a commodity or service is the estimation of its value in terms of money It is the sum which a person actually pays in the purchase of a commodity or service *Consumers' Surplus* measures the difference between the amount a man would give for an article rather than go without it and the actual price he pays for it. Thus—if a hungry man would give anything up to 1*s* for a loaf, but can buy it for 4*d*, his Consumers' Surplus is 8*d*

Question 2—*Explain carefully the Laws of Increasing, Constant and Diminishing Returns.*

Answer—For a statement of *the Law of Diminishing Returns*, see answer to question 3, 1911 Prof Marshall thus enunciates *the Law of Increasing Returns*—an increase of capital and labour leads generally to an improved organisation which increases the efficiency of the work of capital and labour

The Law of Increasing Returns—states that under certain conditions every additional unit of productive power gives a more than proportionate return The law really expresses in brief the advantages of large scale production and of division of labour

The two tendencies, *i e*, diminishing and increasing returns press against each other as raw materials are produced at increasing cost and finished goods at diminishing cost When they exactly balance we have *the Law of Constant Returns*, i e, the successive units of productive power give equal returns Thus the increased cost of producing a larger quantity of wheat may be exactly balanced by the economies of a large flour mill The same industry may be subjected to increasing, constant or diminishing returns at different stages of production

Question 3—*What is market-price? How is it distinguished from normal price? Show how market-price is determined*

Answer—By normal or long period effects we understand what would be the ultimate results apart from any exceptional conditions, if (a) time were given for all causes to work themselves out, and (b) no other change took place

Current or market or occasional values are those in which the temporary causes, the accidents of the moment *exert a preponderating influence, while normal values are those which depend on more permanent causes*, those which would be ultimately attained if economic conditions under view had time to work out undisturbed their full effect

In assuming that demand and supply are normal, we suppose that forces of demand and supply have full play, that there is no close combination among dealers on either side but each acts for himself and there is much free competition This is assumed to be true both of finished goods and of their factors of production, of the hire of labour and of the borrowing of capital

Market-price is one in which day to day fluctuations have their play. As regards market-prices, supply is taken to mean the stock of the commodity in question which is on hand or at all events "in sight". Hence, if demand increases relatively, there is a rise in price, if it falls there is a fall in price. Let us consider the example of a fish market. Fish is a perishable commodity and must be disposed of within a few hours of its catch. Now, if the demand for it is keen on a particular day on account of a festival or some other reasons, it will be sold at a very high price. Again, on a particular day, if markets are deserted because of a heavy shower, the demand at once slackens and fish can be had at a very low price. By its very nature *market price is more liable to fluctuations than normal price*.

Question 4.—*Comment on the following statement:—"An inconvertible note issue is a special case of monopoly value."*

Answer.—*Inconvertible paper-money is paper money in exchange for which metallic money cannot be had on demand.* It has any value simply because the authority of the State is behind it. It has been also called *fiat* money, because its value and currency depend on the command or fiat of the political authority. This is done by making the paper legal tender and by accepting it in payment of taxes and other public dues at its face value.

Other things remaining the same, the value of paper money is determined by its quantity, i.e. the quantity theory of money holds good in the case of paper-money same as in the case of metallic money and is subject to the same qualifications. Therefore, the value of inconvertible paper money falls (and prices of commodities rise) if the issue of paper money increases. In the case of convertible paper money the necessity for keeping an adequate reserve serves as a check to over issue. But in the case of inconvertible paper money there is no such check and the temptation to over issue is very great. The very fact that inconvertible paper money has been issued shows that the government is in financial difficulty. There is no easier way of payment for government than to issue these inconvertible notes which are legal tender.

The value of a monopolised commodity depends upon the monopolist's control over supply and the monopolist adjusts his supply to the demand and selects that price as the monopoly

price which will yield him the largest net profit out of his monopoly In the case of inconvertible paper money, the State issuing the inconvertible paper is the monopolist controlling the supply, and the inconvertible paper money retains its value because its supply is limited by the monopolist (the State)

Question 5—*Discuss the economic effects of the growth of industrial combinations*

Answer—Advantages

The champions of industrial combinations proclaim these *combinations or monopolies (e g , trusts, kartels, etc) as useful in that (a) they avoid all wasteful competition* (b) *and* promote the interest of the individual concerns by *securing all the advantages of large scale production* There are undoubtedly some of the economic advantages procured by industrial combinations

Foremost *among the* disadvantages of these combinations, (1) is the inevitable *rise in prices* they bring about *This rise in prices* brought about by the monopolists *is a great loss to the consumers* Secured by a high tariff of their own market, they can use their *immense* resources gradually to cut out all independent producers And when they are all gone, or have surrendered at discretion, the trust is free to dictate its own prices, which are frequently higher in the home market than the prices charged by the same producer abroad

(2) *The immense profits the trusts secure are reserved only for a few happy individuals who control these monopolies or trusts* Their positions in the industrial world, their wealth, connections and resources give to the trust magnates ample opportunity to obtain protection from the government Working under such protection they are above the fear of healthy competition

(3) *These monopolies deal, often unfairly and unsympathetically, with the workmen employed under them, also with rival producers*

(4) Often these monopolies corrupt politicians and legislators for getting special privileges for themselves Thus public life is degraded

(5) *Opinions are divided with regard to the question as to whether industrial combinations mitigate fluctuations in output and price According to some economists, they make the output and price steady*

on account of the removal of the chaotic conditions of competition Magnitude of their investment, the broad interest of the proprietors in the stability of general business and that relative immobility which attaches to their gigantic organisations have all a steadying effect on the output and price

On the other hand, when a trust is threatened, great changes of prices and of organisation might be expected Also the directors may be interested in the fluctuations of the prices of its products and securities if they are engaged in a stock exchange campaign

Question 6 —*Briefly state the Quantity Theory of Money*

Answer —Other things being equal, the value of money falls proportionately (and the price-level of commodities rises), with an increase in the quantity of money, and the value of money rises proportionately (and the price-level of commodities falls) with a decrease in the quantity of money

This can be proved in the following way Money is simply a commodity which has been selected to measure the value of all other commodities, so that the latter can be conveniently compared and exchanged *The estimation of the value of a commodity in terms of money is called its price* Now an increase in the supply of one commodity (money), the supplies of all others remaining unaltered, will cause its value as compared with theirs to fall and their values as compared with its to rise Hence an increase in the supply of money tends to produce a rise in prices of commodities, and similarly a decrease in the supply of money a fall in prices *There are, however, in practice other factors ('other things') in the problem, which may intensify or diminish the effect of an alteration in the amount of money on prices*

These '*other things*' are —

(1) The state of trade, the amount of business done,
(2) The proportion of business done by barter,
(3) The proportion of business done on credit, and
(4) The rapidity of the circulation of money

The Quantity theory of money holds true if these 'other things' remain equal or unaltered—in other words if the amount of business in the country, the proportion of business done by barter

or on credit, and the rapidity of circulation of money remain the same as before, then the value of money depends only on the quantity of money, the value of money falling proportionately with an increase in the quantity of money and the value of money rising proportionately with a decrease in the quantity of money

Prices rose considerably in consequence of the discoveries of silver in Mexico and Peru and of gold in California and Australia *What determines prices in a highly developed community is the relation between the quantity of goods and the quantity of the total purchasing power* The volume of purchasing power is by no means the same as the volume of specie, but *so far as the quantity theory is concerned notes, cheques and other forms of paper money act in the same way as metallic currency*

For the formulae relating to the quantity theory, refer to answer to question 8, 1914 (pages 81—82)

Question 7 —*Write notes on any two of the following* —(a) *the Mint Par of Exchange*, (b) *the Specie Points*, (c) *Quasi-rent*, (d) *Supplementary Cost*

(*1*) **The Mint Par of Exchange** —In the case of two countries both of which use the same metal for their standard coins, a basis can be obtained by discovering the legal amount of pure metal in each of the currencies, around which the Market Rate of Exchange will vary The basis is called the "Mint Par of Exchange" and is obtained from the legal rate of equivalence of the currencies of the two countries *The Mint Par thus expresses the relation between the standard coins of different countries in terms of their metallic value One £ sterling is equivalent to 25 225 francs or 4 866 dollars* Limitations to the variations of the "Market Rate" about the "Mint Par" are placed by the "Specie Points," determined by the cost of actually transmitting the metal

(2) **The Specie Points** —The two maximum and minimum limits to the fluctuations in the rate of exchange are—

(*i*) par rate of exchange plus the cost of transmitting specie (maximum rate),

(*ii*) par rate of exchange minus the cost of transmitting specie (minimum rate)

The Specie Points or Gold Points are those limits in the rate of exchange at which gold flows from country to country

There are two ways of settling a debt incurred in a foreign country, either to buy a bill of exchange payable in that country, or to send some form of money acceptable there (Gold Bullion or Specie) The former is the cheaper method unless the supply of bills is so much less than the demand that they rise to a premium equal to the cost of transmitting the actual money, called the Gold, Specie, or Bullion Point of Exchange There are two such Points, an outgoing, as above, and, by reasoning in the same manner from the side of the foreign country, an incoming Gold Point Taking the example of London and Paris, in ordinary times, the cost of transmitting gold bullion is 4 in 1,000, two fifth per cent, and since the mint par is £1=25 22½ francs, the "Specie Points" are £1=25 12½ francs and £1=25 32½ francs

(3) **Quasi-rent**—The term "Rent" is applied in Economics to a payment made for the use of something limited in supply, usually land of a certain degree of fertility

Certain kinds of income analogous to rent are called quasi rents

Prof Marshall thus defines quasi-rent "*The net incomes from appliances for production already made may be called their quasi rents*, partly because we shall find that when we are considering periods of time too short to enable the supply of such appliances to respond to a change in the demand for them, the stock (of these appliances) has to be regarded as *temporarily* fixed For the time they hold nearly the same relation to the price of the things which they take part in producing, as is held by land or any other free gift of nature, of which the stock is *permanently* fixed and whose net income is a true rent."

Appliances for production include machinery, factories and other buildings, also business ability and manual skill, etc, and so there will be quasi rents from machinery, factories and other buildings, also quasi rents from business ability and manual skill, etc

(4) **Supplementary Cost**—A firm producing a commodity has (a) its *general expenses (supplementary costs)* (b) and its

pecial costs (prime costs) incurred for supplying a particular order

The businessman expects under normal conditions to sell his products at prices which will cover his prime as well as his supplementary costs.

The prime costs and supplementary costs taken together from the total cost of the commodity

The prime costs of, say, a particular chair are the specific costs incurred on behalf of that particular chair and of no other chair, apart from the general costs of maintaining the factory in which it was made Prime costs (cost of material, weekly wages, etc) cease when the factory stops work for a short time The general costs of the factory (interest charges on the plant, depreciation, rent of premises, and salaries of the upper officials) which continue even when the factory stops work for a short time, these are the *supplementary costs*

Question 8.—*Discuss on what grounds it may be considered desirable to impose restrictions on the freedom of international trade*

Answer.—See answer to Q 7 (a), 1920

All of the arguments for a protective tariff are not strictly economic in character There is, for instance, the argument that protection should be used to ensure national self sufficiency This argument, in so far as it carries great weight, is of a military significance A country waging war is likely to have its foreign trade seriously interfered with If the country in question has relied on foreign trade for the necessaries of life, it will be subject to a considerable strain during the war period If it has relied upon foreign trade for firearms and ammunitions, it may be in no better position It is asserted, therefore, that a country should adopt the policy of producing all necessaries and war-materials even though to do this brings some immediate economic loss

It must be admitted that this argument, like the argument for protection to infant industries, has a great deal of strength in it

Question 9 —*Critically examine the socialistic view of profits as a share in distribution*

Answer —See ans to Q 10, 1919

Question 10 —*Discuss the functions and utility of Trade Unions*

Answer.—Prof Marshall describes *a modern Trade Union as* "*an associations of workers in the same or or allied trades which collects funds from all its members, and* applies them *firstly* to support those of its members who cannot obtain employment except on terms which it is contrary to the general trade policy of the union for them to accept, and *secondly* to grant certain provident benefits to members in need"

The trade union has two chief functions—

(1) *that of a friendly society (or brotherhood) for mutual aid* such as helping a fellow-workman when in distress through illness or through being out of employment (Every member of the union has to pay a regular contribution to the common fund out of which the aid is given when necessary)

(2) *that of a militant (or fighting) body* organising the workmen of a particular trade into a combination sufficiently powerful to protect against employers the rights of the labourers in respect of wages, hours of labour, etc

Trade unions can do a great deal to better the general conditions of labour—to secure that factories shall be healthier and brighter and the operatives more comfortable at their work—both directly and by pressing for legislation Workmen, when they act individually, are much less likely to bring about improvements of this kind The march of reform is made easier for employers when at each step all competitors are kept in line

Upon wages, as well as upon the general conditions of labour, trade unions have marked influence In a majority of cases trade unions brings about a better understanding between the employers and the workmen A wise trade union policy always shuns strikes and throws its weight on the side of conciliation, arbitration and other peaceful methods for the settlement of industrial disputes

1923

Question 1 —*'The problem of population is not one of mere size, but of efficient production and equitable distribution, Discuss*

Answer —*The problem of population is not one of numbers alone but of efficient production and fair (equitable) distribution of wealth* Man is the chief labour force and large numbers indeed, other things being equal, mean greater national strength and power But the reverse may be true if other things are not equal A small nation with greater productive efficiency, like England, will outrank a more populous country like India Smaller numbers with a more efficient production and a fairer distribution of wealth are preferable to a dense population living in the extremes of misery and opulence *Mere numbers are, therefore, not the vital point*

In earlier times, when more primitive industrial methods soon set a limit to production, over-population was a real danger —and *over-population was the great danger emphasised in Malthus's theory of population Malthus declared that population tended to increase at a faster rate than food-supply In modern times*, in the estimation of Marshall, *the productive power of the world has been at least quadrupled The doctrine of over-population has therefore lost its terrors for modern society, specially in rich and economically progressive countries like Britain and the United States of America The stress has been shifted from food (which was stressed by Malthus) to wealth and efficiency by modern writers* Through a proper organisation and utilisation of modern improved methods, production of wealth in general may be so augmented as to permit an increase both in population and in prosperity This has happened in the western countries all through the nineteenth century The industrial revolution has not only multiplied national wealth, but has greatly increased population while reducing misery, vice and crime *The problem of population, in short, is to-day a part of the broader problem of the production and distribution of wealth*

Question 2 —*Give a brief account of the Mercantile Doctrine.*

Answer —See answer to question 4, 1910 (pages 27—29).

Question 3 —*Discuss the merits and defects of competition as a factor in modern industry*

Answer —See answer to question 5, 1911 (pages 46c, 46d)

√ **Question 4** —*'Value' is at bottom the expression of marginal utility'—Amplify*

Answer—See answer to question 3, 1914 (pages 75—76)

Question 5 —*Discuss the economic functions of speculation*

Answer—*The fundamental effect of speculation is stabilise (i e, steady) prices of commodities and to promote the establishment of the equilibrium of supply and demand, and facilitate the smooth course of exchange and consumption*

[See answer to question 5, 1915 (page 90)]

Question 6 —*Point out the intimate relation which subsists between wages and efficiency Is it true to say that poverty causes degradation ?*

Answer —*The maximum that an employer may pay as wages is limited by the advantages he derives from the labour of the workman, in other words, the workman's efficiency* In some employments an additional workman will afford advantages equal to that of the previously employed (Constant Returns), in some less (Diminishing Returns), and in others more (Increasing Returns) Even in the last case, a point is bound to come when the produce of an additional workman will be less advantageous to the employer than that of those previously employed Thus, the net product of the marginal workman after a point tends to decrease The demand price of labour is limited by this net product of the marginal labourer If wages rise higher than this it will not pay the employer to keep the marginal worker in employment The marginal labourer will therefore be dismissed and his competition will bring down the wages to this limit

Efficiency of the labourer, however, is not the only factor that governs rates of wages It can only explain why wages are paid and they cannot rise permanently above a certain maximum In explaining the actual rate we must also consider the supply of labour If the supply is relatively small, wages may reach this maximum provided the workmen are so organised that they can make the wage-contract on an equal footing with the employer

Poverty may sometimes cause degradation A high birth-rate commonly means misery, but misery, in turn, often increases the birth rate When a people is poor and sees no prospect of escape from poverty, it is in danger of becoming demoralised Multiplication takes place without thought of the future, since the future seems in any case without hope That very multiplication shuts the door to hope Poverty breeds discontent The health of the population is undermined As their efficiency is lower, the marginal productivity will also be lower and so indeed the demand price for their labour This degradation has a tendency to be progressive and will affect the efficiency of the rising generation as well The evil is, therefore, cumulative in its effect

Question 7 —*Describe the various functions of a modern bank*

Answer —A Bank performs two main functions equally important, yet very different

(1) It acts as an agency for the collection of savings and for investment —This the bank does chiefly by its functions of (a) *deposit* (borrowing deposits from members of the public who have saved money), (b) *discount*

Banks finance the industry and commerce of a country

(2) It creates a part of the medium of exchange

A savings bank has to do with investments only The operations of this type of bank have no concern with the issue of money It is the commercial banks that are chiefly associated with the creation of the medium of circulation

The simplest operation of a bank in this connection is *note issue* A bank note is a promise to pay a specified sum to the bearer on demand In law, it is like any other promissory note payable to the man who presents it

In modern times, especially in the English speaking countries, notes do not stand alone In addition to them, and of much greater volume and effect in a country like the U S A or England are the *deposits* A bank receives money on deposit from its clients, collects sums due to them and pays out on their orders the sums due by them *Deposit banking has developed the cheque system under which the currency expands or contracts automatically to suit the needs of modern exchanges*

(3) Certain banks deal in foreign exchanges

(4) Some banks (*e g*, the Bank of England in England, the Bank of France in France) act as fiscal agents of the Government, (a) keeping the government balances, (b) raising loans and managing the public debt on behalf of the government

Question 8 —*Summarise the principal arguments in favour of free trade and protection respectively*

Answer —See Answer to Question 8, 1922

Question 9 —'*Credit is capital*' *Discuss*—

Answer —*Credit is not Capital*—When a creditor lends a sum of Rs 100,000 to a borrower who borrows the money for building a factory, *this credit transaction has not created a new capital in the hand of the borrower in addition to the capital in the hand of the creditor*, the credit transaction has only transferred the capital of the creditor to the borrower Credit is not actually capital, for if the capital is in the hands of the borrower, it is withdrawn from those of the lender *Credit is not capital—credit only makes possible the more economic and productive use of capital* *If we borrow funds* (from persons who have capital but who do not use it for productive purposes) *to increase our business and production, the credit is for purposes of production* With the advent of modern economic conditions, credit has become to an overwhelming degree productive credit In the hands of the borrower (who uses the borrowed capital for productive purposes in trade, manufacture, etc), however, the capital does more good than in those of the lender, for otherwise it would not be transferred To the lender, the capital is, so to speak, passive, to the borrower, active To the extent that credit puts capital where it is more productive than it would otherwise be, it is equivalent to an increased usefulness of capital, a more economical and productive use of capital

Question 10 —*Write short notes on*—

(*a*) Consumer's Surplus

(*b*) The Principle of Substitution

(*c*) Normal Value

Answer —

(a) **Consumer's Surplus** —See answer to question 1, 1922

(b) **The Principle of Substitution** —*The possibility of using two different commodities*, both of which satisfy the same desire, though one to a greater extent than the other, acts as a limitation on the price of either Thus the fact that people prefer tea, but will substitute coffee if the price of tea be abnormally high, limits the power of a monopolist to raise its price

Again, *the principle of substitution has great influence in the sphere of production* A manufacturer tries to use factors in production of different sorts in such quantities that the marginal return of each of them equals its cost

A manufacturer, say, is making steel If he adds Rs 20/- a week to his wages bill to increase his staff of labourers, suppose his weekly product will be raised by *one* ton of steel If he adds Rs 20/- a week to his interest account to increase his capital, suppose his weekly product will be raised by *two* tons of steel Then he will borrow more capital and possibly reduce his labour—*substituting capital for labour* And so he will proceed until a unit of additional expenditure will have the same effect on his output whether it purchases labour or capital "Scientific Management" of industries always tries to give effect to the principle of substitution.

(c) **Normal Value** —*Current or market or* occasional *values* are those *in which temporary causes, the accidents of the moment exert a preponderating influence,* while *normal values are those determined by more permanent causes,* which would be ultimately attained if economic conditions under view had time to work out undisturbed their full effect

In assuming that demand and supply are normal, we suppose that the forces of demand and supply have full play, that there is no close combination among dealers on either side but each acts for himself and there is much free competition This is assumed to be true both of finished goods and of their factors of production, of the hire of labour and of the borrowing of capital

With regard to *short period normal prices*, supply means broadly what can be produced for the price in question with the existing stock of plant, personal and impersonal, in the given time On the one hand there is not time materially to to increase those appliances, if the supply of them is deficient, on the other, if the supply is excessive, some of them must remain imperfectly employed, since there is not time for the supply to be much reduced by gradual decay and conversion to other uses

When the term *normal* is to refer to *long periods*, supply means what can be produced by plants which themselves can be remuneratively produced and applied within the given time

Time has an important bearing upon demand also The growth of demand is, in fact, gradual People take sometime to learn the use of a thing In the *short as well as long periods*, if supply increases, demand being constant, the normal price has a tendency to be lowered The price will fall by a small or great amount according as the demand is elastic or inelastic Again if, under new conditions, the supply conforms to the law of diminishing returns, the extension of demand will be small, if it conforms to the law of constant returns, the extension will be greater, if the law of increasing returns come into operation, the extension will be remarkably great

If there is increased demand for manufactured products, supply being more or less fixed in the *short period*, the immediate effect is always to raise price irrespective of the nature of supply In *the long period* forces are set up which have a tendency to lower costs, if the industry works under increasing returns, such a tendency is counteracted when larger supplies can be obtained only in decreasing returns

It must be always remembered that in *short as well as long periods, utility and cost of production, not singly, but jointly, determine value* as the upper and the under blades of a pair of scissors are necessary for cutting a piece of paper

1924.

Question 1—*Describe the part played by capital in the modern industrial system*

What are the different ways in which capital is organised?

Answer—Capital aids labour in production by supplying labourers with tools, machinery, and thus greatly increases efficiency of production

(i) *The function of capital which has been much emphasised lies in advancing subsistence to labourers* during the course of production It has also been noticed that the greater the capital, the greater would be the division of labour

(ii) *Bohm-Bawerk has placed great weight on the role of capital in lengthening the process of production by supplying suitable aids to production in the form of machinery*, etc, and thus increasing greatly the efficiency of production Availability of capital helps round about or elaborate processes of production Round-about processes which involve time are in general, more efficient than simple processes This explains the usefulness of capital in the modern industrial system

At the same time, *socialists argue that there is another function of capital which mainly consists in the exploitation of labour* Capital, thus, plays a part not only in production but also in distribution As a matter of fact, in the capitalist epoch, the working classes have gained on the whole very considerably in material well-being Still, we must be thankful to the socialists for drawing attention to the important function of capital in distribution

For the second part see ans to Q 4, 1919 and Q 3, 1921

Question 2—*Examine the Wages fund Theory What principles would you suggest for adoption in order to secure an equitable division of the product of industry?*

Answer.—For the Wages-fund Theory see answer to question 2, 1911 (pages 45—46a)

There is, however, a kernel of truth in the wages fund doctrine Wages do depend upon capital in the sense that the more capital there is, the higher wages are, for the more aids

to production men have to work with, the more wealth can they make Again, in certain sense the present wages depend upon the manner in, and the extent to which the earlier stages of production have been carried on

It is believed, rightly or wrongly, that the capitalists of to-day appropriate a large portion of labour's share in the produce Actuated by this belief the labourers range themselves against the capitalists and consider their own interests to be thoroughly separate from and alien to the interests of their employers *The only way to remove this misunderstanding is to take the labourers into confidence, to reveal to them the true state of the industry* The important feature common to all co partnerships is that which gives to the employees a share of the profits of the business, and encourages them to accumulate the same in some class of capital issued by the business Thus the workmen are compelled to take a real interest in the conduct of the business, in its weal and woe, like the capitalists As to the formation of co partnership concerns by groups of workmen, these obviously succeed best in those businesses in which a beginning can be made with small capital, and in which the skill and character of the workmen are relatively important

Profit-sharing is a device for binding together the employer and the employees engaged in a given enterprise Profit-sharing aims to distribute among the workmen (in addition to wages) some part of the profit which ordinarily goes, *in toto* to the businessmen

An entirely different device is that of *the sliding scale* *By this, as by profit sharing*, an automatic sharing of good results and of bad is sought , but in a different way *Wages are made to vary with the price of the product, going up as the price rises, declining as the price falls* A minimum rate, below which wages shall in no case fall, is usually set This method is applicable only where the price of the product can be ascertained readily, say from published market quotations

Question 3 —*Discuss the advantages and disadvantages of the international division of labour.*

Answer —The advantages and disadvantages of the international division of labour are mainly those arising out of a

policy of free trade for a discussion of which see Ans to Q 8, 1923

Question 4 —*Describe the importance of the transportation in the modern system of manufacturing*

What effects does cheap transportation tend to produce on the size of markets?

Answer —The mechanical facilities for communication between buyers and sellers have made possible the existence of large scale production *Before the introduction of modern forms of transport (like steamships and railways) local wants were mainly met by small scale production in the neighbourhood* Very few households could show many articles which had not been produced in the same locality But, nowadays, the greater part of a man's necessaries, comforts, etc, come from a distance of thousands of miles (1) Raw materials are sent from one part of the globe to be manufactured at another part (2) From mining centres, coal and oil are distributed all over the world for generating motive power to work gigantic machines (3) Capital,—both fixed (*e g*, machinery) and circulating (*e g* money) are constantly seeking investment in places where they expect the highest returns (4) Rapid means of transportation has greatly accelerated the mobility of labourers who migrate to and settle in areas where their services are most in demand *All these factors have led to large-scale production and localisation of industries made possible by modern methods of transport, e g, railways, steamships, etc*

Large scale production and localisation of industries are limited by the extent of and proximity to the market The technical improvement in transport has immensely widened the market The cost of carriage is in most cases surprisingly small and the transit of goods is a question of only few days or weeks Hence, industries nowadays congregate in places where they can be most economically worked and if their products are of international demand, such goods are regularly shipped to distant markets where they find their way to customers The customers, in their turn, on the assurance of rapid means of transportation, cease to get the goods manufactured locally and depend safely on foreign producers and exporters Thus cheap and swift transportation has in every way increased the size of the markets.

Question 5—*Define 'Taxation'*

Discuss the merits and defects of direct and indirect taxes

Answer—According to Prof Bastable "a tax is a compulsory contribution of the wealth of a person or body of persons for the service of the public powers" Each term of this definition is significant

First, a tax is compulsory This does not mean that all tax revenue is paid unwillingly, but merely that the will of the payer is legally immaterial The amount, the mode and time of levying the persons affected, are all determined by the sovereign

Secondly, a tax is a 'contribution'—that is to say, it involves a sacrifice on the part of the contributor Every tax is a deduction from the wealth of the contributor with no visible compensation

Thirdly, the term 'wealth' has to be understood in a wide sense, including 'service' as well as commodities Military service or forced labour for, say, repairing roads is taxation, quite as much as payment of money or goods

Fourthly, all taxation is imposed on 'persons'. This necessarily follows from the circumstance that the payment of taxation is a duty, and persons only can be liable to duties

Fifthly, taxation is levied for 'service' or 'benefit' The public economy requires the supply of its wants, and taxation is the mode of meeting whatever proportion of those wants remains unsatisfied from other parts of the public revenue

Finally, taxation is for the 'public powers', *i e*, it has to meet the wants of both central and local governments A rate raised by the smallest municipality is as much a tax as if it were levied by the Imperial Parliament In the view of finance, all contributions to the various organs of government are taxes

One of the most widely known and frequently used divisions of taxation is that into 'direct' and 'indirect' It is stated by J S Mill in the following terms :—

'Taxes are either direct or indirect A *direct* tax is one

which is demanded from the very persons who, it is intended or desired, should pay it *Indirect* taxes are those which are demanded from one person in the expectation and intention that he shall indemnify himself at the expense of another

The difference is here made to turn on the mode of incidence, a matter often very difficult to determine There are instances in which the purpose of the legislator has been defeated and an indirect tax has changed into a direct one and *vice versa*

See answer to Q 8, 1910 (pages 36—37)

Question 6 —*Describe the connection between production and consumption*

Is the consumption of luxuries beneficial in an economic sense to society?

Answer —See answer to question 1, 1918 (pages 112—113)

The consumption of luxuries is condemned by many economists *Luxuries are things which when consumed do not appreciably add to, and may even detract from, a person's economic efficiency* The word '*luxury*' in its ordinary acceptation *means the satisfaction of a superfluous want* This definition does not of itself imply an unfavourable judgment, for, as Voltaire said "The superfluous is very necessary" Luxury, then, must not be confused with wastefulness, though it may, sometimes, degenerate into wastefulness *A little luxury may be wished even to the poorest Again it is often difficult to draw the dividing line between luxuries and necessaries There are cases, however, where indulgence in luxuries clearly involves social waste* A lady, for example, wears a dress the cut of which alone has cost Rs 100 The sum has passed from one person to another without adding materially to the wealth of the world. It would have been better utilised from the point of view fo economics if it had been spent on making machines, *firstly*, because such machines are more durable than the dress and *secondly*, because these machines, in their turn, can produce economic goods which themselves command value

Question 7 —*What is meant by 'freedom of enterprise'? Discuss the influence of economic freedom on production*

Answer —The world has outgrown the conception of the citizens as the children of an all-wise and benevolent paternal

government It has been realised that governments are not always benevolent and never all wise, and that with the growth of capital and competition better results can be secured by the repeal of complicated state regulations which throttle production and check individual initiative It was this that the French manufacturers meant when they told Colbert '*Laissez faire et laissez passer*" (Let the trade alone) That was indeed the necessary destructive process of pulling down the barriers which impeded progress because they checked equal opportunity *Economic freedom usually signifies a state of society in which competition (between businessmen, capitalists, labourers, etc) and individual action, etc, are unfettered by governmental legislation or by any customary obligations*

It has been found requisite, in recent times, to modify both the theory and the practice of laissez faire in order to safeguard the various classes of society But, the difference between medieval and modern interference of the government is to be found chiefly in the fact that the one sought to prevent competition while the other endeavours to enlarge its domain and to raise its level *The modern aim is always to increase liberty through the attainment of equality and responsibility* Factory laws give the labourers a fair chance, supervision of banks, insurance companies, etc, is designed to enforce financial responsibility In all these cases government interference is justified only as leading to a surer and greater general liberty

The influence of economic freedom on production has been to widen the sphere of competition Through competition, the fittest have survived in the field of production and the weak and inefficient firms have been elbowed out. The incessant attempts on the part of concerns, struggling for success, to throw one another into background have led them *to devise various economies of production, greatly to increase productive efficiency and thereby lower prices* The influence of economic freedom on production has thus worked for the good of the society

See also ans to Q 3, 1923

Question 8 —*Describe the various functions performed by a modern bank*

What place does the Bank of England occupy in the monetary organisation of Great Britain?

Answer.—See answer to Q 7, 1923

The notes of the Bank of England are in ordinary times the only form of paper-currency that is legal tender in England and it is the only joint-stock bank which is allowed to issue notes in London The Bank's privileges in matter of note issue were of great service in its earlier history This function of the Bank of England has been thrown into comparative unimportance by the phenomenal development of the use of cheques—

The importance of the Bank in other respects has largely increased in recent times—

(1) *It is now the Bankers' Bank*—*The banks of England keep their reserves in the Bank of England* and issue cheques against the notes of the Bank *The Bank of England provides emergency currency* at the ends of the quarters and at the time of the movement of crops The credit that it makes ranks as cash for the rest of the banking world

(2) *The Bank of England is in charge of the British Government's money matters* At the end of a quarter the government has to pay dividends on consols and other stocks It borrows, say, two millions from the Bank of England But only a small fraction of this amount is actually withdrawn for the greatest part of it again returns to the Bank in the shape of deposits Hence, its task of financing the government is simple and cheap and almost reduced to a matter of entries in its own book This service of the Bank fits in admirably with its custody of the balances of other banks

(3) *The general adoption of the gold standard by the economically developed countries of the world*, accompanied by the fact that London has remained the market in which every draft and every credit are immediately convertible into gold *has greatly intensified the responsibility of the Bank of England, a the centre of the money-market not only of England, but in a sense of the world* The Bank is now the custodian of a gold reserve which is liable to be drawn on at any time from all quarters of the globe from which a draft on London may be presented

Question 9—*What is "Bank-rate"?*

Describe the connection between the bank-rate and the rate of any locality

Answer—Bank-rate say of England is the amount that the Bank of England deducts when advancing a sum of money on the security of a document containing a promise to pay that sum at some future specified date *Bank-rate is the official minimum rate at which the Bank of England will discount bills*

It differs from the market-rate of discount in that—

(i) it is normally higher, and

(ii) it is not a constantly fluctuating rate

Bank-rate becomes effective when the Bank is discounting bills or making advances at the official rate It is in normal times seldom effective The want of connection between the bank rate and the market rate results in leaving the latter wholly without any regulation The market rate is at most times arrived at by competition amongst the other banks and higgling amongst them

Raising the 'Bank-rate' tends to replenish the 'reserve' of the Bank of England, by checking the desire to have bills discounted and by attracting money from abroad Under the present circumstances the Bank of England often has to borrow money to make its rate effective By a series of operations, it reduces the balances of other banks, narrows the basis of credit, makes money dear and brings the market rate of discount into touch with the official rate

Question 10—*Explain the following terms —*

Producers' goods, consumers' goods, normal price, monopoly price, marginal utility, circulating capital, market, and demand

Answer—Producers' goods—are commodities which do not afford a direct enjoyment, but are used as instruments to produce things that afford such enjoyment

Consumers' goods—are commodities which satisfy our wants directly They are articles of immediate consumption, and their value is derived from the uses or enjoyments which they afford

Normal Price—See Answer to Question 10 (c), 1923

Monopoly Price—Articles usually possess value because they are wanted and are either naturally scarce or costly to

roduce In the case of a monopoly, the total supply being under the control of an individual or corporation, the supply an be increased or decreased at the will of the monopolist The monopolist will aim at fixing the monopoly price at the point of maximum net profit,—neither higher nor lower, since too high a price will cause a falling off in the demand reducing his total profit and too low a price will also reduce his total profit

Marginal Utility —See Answer to Question 3 (a), 1920
See Answer to Question 1, 1922

Circulating Capital —See Answer to Question 3, 1921

Market —See Answer to Question 5 (a), 1920

Demand —In the ordinary language of economics, *demand means not simply desire, but effective desire*—a desire which will have some effect on the transactions of the market *Demand has therefore come to mean the quantity demanded at a given price*

1925

Question 1 —*What do you mean by 'elasticity of demand'? Would the demand for a commodity be elastic or inelastic (a) if it is one of the necessaries of life, (b) if there are many possible uses for it, (c) if it has many substitutes, (d) if its use constitutes a habit ?*

Answer —**Elasticity of Demand** —See Answer to Question 1, 1919 and question 2, 1921

(a) *The demand for a necessary of life*, say, wheat, *is inelastic in a rich country like England* Assuming wheat is scarce, it must at any cost be procured and consumed, because it constitutes the staple food for Englishmen Even when it is plentiful, it is not used in any other way Hence a large fall in its price will not appreciably increase its consumption in a rich country like England (In a poor country like India a fall in the price of wheat will much increase the demand for wheat, because large numbers of Indians are half starved on account of poverty and would buy more of wheat at a lower price—so in a poor country like India, the demand for a necessary of life like wheat is elastic)

Generally speaking, those *things which are capable of being applied to many different uses* have the most elastic demand

Water for instance is needed first for drink, then for cooking then for washing of various kinds and so on When water rates are high people will economise their uses of this commodity, when it is available very cheaply the use of it for every purpose will be carried to the full satiety limit

(b) *If a thing has many substitutes*, the demand for it is quite elastic, for if there is a little rise in its price, people will abandon its use and take to the substitutes The converse will happen if there is a slight fall in its price

(c) *If the use of a commodity constitutes a habit*, e g, taking of opium, it is obvious that even a heavy rise in its price will not deter men from purchasing it It follows that the demand for such commodity is largely inelastic

Question 2 —*Define 'Total Utility' and 'Marginal Utility,' and explain clearly the place of the conception of marginal utility in the theory of value*

Answer —See Answer to Question 3, 1920, and Question 4 1923 75.

Question 3 —*Examine the effects of machinery on labour, and discuss whether the progress of mechanical inventions is injurious to the labouring classes*

Answer —See answer to question 4, 1920, and answer to question 4, 1911.

Question 4 —*Estimate the importance of the element of time in the theory of value*

Answer —See answer to question 3, 1922, and question 1 (c), 1923

Question 5 —*What is Bimetallism? Describe its chief advantages and disadvantages*

Answer —See answer to question 9, 1920, and answer to question 5, 1910 (pages 30—32)

Question 6 *Consider the economic effects of rising and falling prices*

Answer —There has been a good deal of discussion of the question whether rising or falling prices are more advantageous to the society A rise or fall of prices, of itself, tells us absolutely nothing about its effects on welfare It is by itself no indication either of prosperity or of loss The net result altogethe

epends on where the change in prices strikes and how it works self out Prices of articles change in different proportions and the effects of the rise or fall will be different, according to the changes produced in wages, incomes, cost of production of goods and population

It is held that the prospect of rising prices constantly urges the entrepreneur to increase his production in anticipation of greater and yet greater gains This statement, however, cannot be made as a general truth for—

(1) If the cost of production falls faster than prices do, the producer will gain just as truly as he will if prices are slightly rising

(2) If the fall of prices occurs for all industries at the same time and in the same degree, then it would be true that fall of prices will be more beneficial than its opposite

Again, rise of prices is an ambiguous term If the rise of prices begins at the wrong end, *i e*, raw materials, the producers of finished commodities whose prices show a halting tendency to rise will not be benefited in any way Similarly, if fall of prices begins to act on the finished commodities, the raw materials all the while remaining comparatively dear, the fall will be passionately disliked by all producers Hence in using the terms 'rise' or 'fall' we must indicate the precise articles in respect of which they are spoken of By themselves, they are vague and indeterminate and do not prove anything in either way

Economic effects of rise in prices

(a) *On Entrepreneurs*—A rise in prices usually brings *gain* first to the entrepreneur (or producer.)

(b) *On capitalists and the rate of interest*—The stimulation of enterprise (due to the increased gain of the entrepreneur) causes an increased demand for capital and forces up the rate of interest

(c) *On consumers*—The competition among producers to sell their goods tends to lower prices and give consumers an advantage

(d) *On wage-earners*—While at the same time the desire of the producers to extend their business leads them to offer higher wages to the labourers This condition continues until a new equilibrium is attained

The tendency of falling prices acts just in the opposite way. The entrepreneurs bear the brunt of the shock and transmit it to capitalists, wage-earners and consumers

Profits thus fluctuate with oscillations in prices and fluctuate in a greater ratio *Wages* lag behind prices when prices rise, when prices fall, wages feel the effect less powerfully, than other shares of the national dividend The influence of changing prices on *the rate of interest* is remarkable If prices rise, creditors lose but it may be that they will secure a higher rate of interest at such times and that will offset the loss from payment of the principal in depreciated money Similarly when prices fall, the debtors lose, but their loss is somewhat compensated by a lower rate of interest

Thus the effects of changes of prices on consumers and producers, on different factors of production are so numerous and perplexing that it is well nigh impossible to theorise as to whether the rising, falling or steady prices are the best for the community

Question 7 —(a) *How is the economic rent of land determined ?*

(b) *Would there be any economic rent if there were no tendency to diminishing returns from land ?*

Answer —(a) See Answer to Question 6, 1919.

(b) See Answer to Question 3, 1911 (page 46b)

Question 8 —*Discuss the effects of trade unionism on wages and conditions of labour*

Answer —Trade unions can do a great deal to better the general conditions of labour—to secure that factories shall be healthier and brighter and the operatives more comfortable at their work—both directly and by pressing for legislation Workmen, when they act individually, are much less likely to bring about improvements of this kind , and the march of reform is made easier for employers when at each step all competitors are kept in line

Trade unions and wages

Upon wages, as well as upon the general conditions of labour, trade unions also have a marked influence (*a*) If in any trade, wages tend to settle at a level beneath the marginal worth of

-bour in that trade, the trade union can at least raise wages up -its marginal worth (b) Moreover, trade union organisation may ise the marginal worth of labour by raising the standard of ficiency among organised labourers

A powerful trade union may force up wages even higher than what is warranted by their efficiency

See also Answer to Question 10, 1922

Question 9—*State the theory of international values*

Answer—As Cairnes has put it "*The one condition at once essential to and also sufficient for the existence of International Trade is a difference in the comparative, as contradistinguished from the absolute, cost* of producing the commodities exchanged"

Let us assume that there are two nations trading with one another in two commodities Let us call the trading countries A and B and the commodities x and y If now a unit of productive power in A produces 10x or 20y, while the same unit of productive power in B produces 10x or 15y, it is obvious that A has an advantage in producing y while B has an advantage in producing x *The next question is, on what terms will x and y exchange between the two countries?* This is the question of international values

Before answering this question, it must be observed that the commodities x and y are assumed to be capable of being proportionately increased to any limit by a corresponding increase in the amount of productive power Their value, therefore, varies with their cost of production, *i e*, in A 10x=20y and in B, 10x=15y This means that we ignore altogether the influence of such factors as custom or the law of increasing or diminishing returns Secondly, the expression "productive power" has been employed to escape the trouble of estimating the exertions of a country in units of labour and capital The unit spoken of need not necessarily or even usually be the same in both countries Lastly, all impediments arising from the cost of transport and customs duties or any other causes are ignored

When each country produces x and y for itself, the total production is 20x (10x+10x=20x in A and B) and 35y (20y+15y=35y in A and B), and when each produces the commodity for which it has a special advantage, when B produces x only and A produces y only, the total production is 20x (10x+10x =20x in B) 40y (20y+20y=40y in A), *there is thus a net gain of 5y How will the gain be shared between the two countries?*

We cannot answer such a question in individual exchange because then it would be decided by the bargaining power of the contracting individuals but in international exchange there is the steadying influence of the large number of persons on each side and so the *ratio of exchange in the case of commodities which are the objects of international trade will depend on the comparative intensity of demand on each side operating within the limit set by comparative cost*

(See Prof M Sen's Outlines of Economics, Part II for comparative cost and International Value)

Question 10 —*Write notes on any three of the following* —

(a) Productive Co operation
(b) Labour Co-partnership
(c) Real and Nominal Wages
(d) Favourable and Unfavourable Exchanges
(e) Canons of Taxation

Answer —*(a)* **Productive Co-operation**—refers strictly to the *production undertaken by associated groups of workmen-capitalists* who act through an elected committee *In productive cooperation, labourers combine to* eliminate the employer, and *they become their own employers*—and *so labourers get wages as labourers and in addition they get profit as employers Productive co operation has met with only limited success* (1) *Securing capital has been a difficulty,* (2) *also securing capable managers* Not infrequently, the inevitable limitation of the manager's authority has been a serious handicap In trades where little capital is needed, and where efficiency depends largely on the application and care of individual workmen, co-operative groups of well-selected men may be expected to reap prosperity

(b) **Labour Co-partnership**—In a system of labour co-partnership the employees *(labourers)* are represented on the board of management and *receive a share of the profits in addition to their wages* It implies a share of the workmen both in the control and the profits of the industry

See also Answer to Question 2, 1924

(c) **Real and Nominal Wages**—See Answer to Question 1, 1920

(d) **Favourable and Unfavourable Exchanges**—See Answer to Question 7 *(a)*, *(b)*, 1922

(e) **Canons of Taxation**—See Answer to Question 9, 1919

SEN PRESS,
CORNWALLIS BUILDINGS,
CALCUTTA